ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC

Asian Population Studies Series No. 138

Trends, Patterns and Implications of Rural-Urban Migration in India, Nepal and Thailand

UNITED NATIONS

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UNITED NATIONS
New York, 1995

ST/ESCAP/1572

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I. OVERVIEW OF RESEARCH REPORTS

A. BACKGROUND OF STUDY

Migration from rural to urban areas is a necessary component of the transition of developing economies from an agricultural to an industrial and service basis. Nonetheless, rural-to-urban migration may be a wrenching experience for the migrants themselves, while exacerbating many economic and social problems both in the origin and destination areas.

The Economic and Social Commission for Asia and the Pacific (ESCAP), at its forty-seventh session, in 1991, observed that "migration from rural to urban areas continued at a rapid pace in many countries of the region, and it was often beyond the capacity of towns, cities and metropolitan areas to cope with the increasing numbers. That had resulted in serious environmental problems and shortages of basic urban services. In that regard, the Commission, stressing that an adequate response to those problems required access to reliable data and information for planning purposes, urged the secretariat to undertake policy-related research to assess the impact of population redistribution as a basis for effective urban planning."

In response to those concerns, the project on trends, patterns and implications of rural-urban migration in the ESCAP region was formulated by ESCAP and funded by the United Nations Population Fund (UNFPA). The major purpose of the project was to conduct detailed analysis of rural-urban migration, based on results of the 1990-1991 round of population censuses.

That purpose was consistent with a recommendation of the Pre-Conference Seminar on Migration and Urbanization: Interrelationships with Socio-economic Development and Evolving Policy Issues, held at Seoul in January 1992, which stated that "Countries should ensure the full utilization of existing data sources for the study of urbanization, migration and development at national and international levels." (ESCAP, 1992, p.3). The same Seminar recommended that, "Based on the experience and valuable insights gained from the 1970 round of censuses on migration and urbanization, ESCAP should continue to play a catalytic role in the encouragement of comprehensive analysis of migration and urbanization in the 1990 round of censuses."

As the initial activity of the project, ESCAP organized the Expert Group Meeting on Trends, Patterns and Implications of Rural-Urban Migration, at Bangkok in November 1992. That Meeting reviewed current knowledge concerning rural-to-urban migration in the region, examined the sources of data available for in-depth studies, and agreed upon a tentative outline for country studies. Under the aegis of the project, the detailed studies contained in this volume were completed for India, Nepal and Thailand. A similar study in Malaysia has been delayed, pending release of 1991 census data on migration. It is anticipated that the Malaysia study will be published in a separate volume.

B. TRENDS AND PATTERNS OF URBANIZATION AND MIGRATION

The ESCAP region is currently urbanizing at a rapid pace. The United Nations (1995) estimated that in 1990, the urban population of Asia as a whole equalled 32 per cent of the total population, and that by 1995 the proportion was 35 per cent. The percentage urban is projected to increase to 38 per cent in the year 2000, 44 per cent in 2010, and 51 per cent in 2020. China is 30 per cent urban in 1995, but each of the other countries and areas in Eastern Asia is at least 60 per cent urban. South-eastern Asia is 34 per cent urban, and South Central Asia is 29 per cent urban.

The degree of urbanization varies widely in the Pacific. Australia is 85 per cent and New Zealand is 86 per cent urban. Melanesia as a whole is only 21 per cent urban, while both Micronesia and Polynesia are over 40 per cent urban.

As several of the largest countries in the region are less than 30 per cent urban, there remains the potential for large-scale migration from rural to urban areas, with the consequent high rates of growth of urban populations and rapid urbanization.

If it is assumed that the rate of natural increase in urban areas equals that for the total population (in most cases it is actually lower), it may be calculated that about half of the current growth of urban populations in the region results from the combined effects of net migration and reclassification of previously rural areas as urban. Such a calculation for the period 1990-1995 implies that net migration and reclassification accounted for 53 per cent of the urban growth in Asia as a whole, 68 per cent in Eastern Asia, 57 per cent in South-eastern Asia, and 38 per cent in South Central Asia. The high figure for Eastern Asia is largely determined by the volume of rural-to-urban migration in China. If China is excluded, the contribution of net migration and reclassification to urban growth in Eastern Asia was 23 per cent in the period 1990-1995 (United Nations, 1995).

In each of the three countries for which research reports are presented in this volume, India, Nepal and Thailand, the rate of growth of the urban population slowed considerably during the 1980s, relative to the 1970s. In India, the urban population expanded at a rate of 3.8 per cent per annum between 1971 and 1981, but only 3.1 per cent between 1981 and 1991. In Nepal, the urban growth rate declined from 5.4 per cent to 4.4 per cent for the same periods. In Thailand, the urban growth rate equalled 5.5 per cent for the 1970-1980 intercensal period but only 2.5 per cent for the 1980-1990 period.

The reasons for the lower growth rates, and their accuracy, vary among the countries. In India, as there was no decline in the rate of natural increase in urban areas between the two periods, it is concluded that a lower volume of rural-to-urban migration accounted for the lower urban growth rate during the period 1981-1991. At the time the report for India was prepared, census migration data had been released only for the State of Punjab. In Punjab, the rate of growth of the urban population also declined between the two most recent intercensal periods, from 3.7 to 2.5 per cent. In that state, the volume of net rural-to-urban migration in the five years prior to the census had increased by 22 per cent in the 1991 census relative to the 1981 census, while the urban population had increased by 29 per cent. It may be concluded that in Punjab, the lower urban growth rate resulted from both a decline in the urban rate of natural increase and a relative decline in the contribution of net migration to urban areas (in spite of an absolute increase in net rural-urban migration).

While the rate of growth of the urban population in Nepal declined from 5.4 to 4.4 per cent between the periods 1971-1981 and 1981-1991, there is no evidence that the level of migration declined. The 1991 census presented data only for lifetime migration and that occurring in the period 12 months prior to the census. The number of lifetime inter-regional migrants had increased from 1.0 million in 1981 to 1.4 million in 1991. It may also be noted that the proportion of lifetime migrants in the urban population increased from 16 to 17 per cent between 1981 and 1991. Thus, the lower rate of urban growth in the period 1981-1991 apparently resulted largely from a lower rate of natural increase in urban areas.

The apparent decline in the rate of urban growth in Thailand, from 5.5 per cent in the period 1970-1980 to 2.5 per cent between 1980 and 1990, must be interpreted with caution. The expansion of urban boundaries probably accounted for a larger share of urban growth in the 1970s. Relatively slow economic growth in the early 1980s may have reduced the level of rural-urban migration, but migration rates had probably fully recovered by the late 1980s.

Much urban growth in Thailand occurs on the fringes of cities, outside of urban boundaries used for census purposes. As these areas are officially "rural", the level of rural-to-urban migration is underestimated. While the 1991 census reported that 18.7 per cent of the population lived in urban areas, if the population of Sanitary Districts with more than 5,000 inhabitants had been considered urban, the proportion urban would have equalled 27.1 per cent.

As the net number of migrants from rural to urban areas in Thailand increased by 61 per cent between the periods 1975-1980 and 1985-1990, it is clear that the decline in the urban rate of growth has not been caused by any reduction in rural-to-urban migration.

There was no consistent pattern of either urban concentration or deconcentration in India and Thailand during the 1980s, whereas in Nepal the capital Kathmandu grew at a rate well above the urban average.

In India, the five largest cities comprised 20 per cent of the urban population in 1971 and approximately 19 per cent in 1981 and 1991.

Greater Bombay surpassed Calcutta as the largest city in India between 1981 and 1991, and grew by an annual average of 4.2 per cent. Hyderabad expanded at a rate of 5.3 per cent during that period. Other cities of more than a million population that grew rapidly between 1981 and 1991 were Pune (3.9 per cent), Lucknow (5.0 per cent), Surat (5.1 per cent), Jaipur (4.0 per cent) and Kochi (5.1 per cent).

Thailand census data indicate that the share of urban population living in the Bangkok Metropolis declined from 61 to 58 per cent between 1980 and 1990, but these figures are misleading. In fact, rapid urban growth is occurring on the periphery of Bangkok. The urban population of the five provinces bordering Bangkok, usually referred to as "Bangkok Vicinity", has grown by at least 4 per cent per annum in each of the periods 1975-1980, 1980-1985 and 1985-1988. The growth rate was over 10 per cent in the latter period, but was influenced by reclassification of previously rural areas.

It is clear that urban population in Nepal is continuing to become more concentrated in Kathmandu. The capital contained 25 per cent of the urban population in 1991, and had grown at 5.8 per cent a year between 1981 and 1991. Among the four largest cities, only Kathmandu and Pokhara (at 7.1 per cent) had grown more rapidly than the national urban average of 4.4 per cent. Eight towns in the *tarai*, all of them under 70,000 in population, had also grown more rapidly than the total urban population.

It is difficult to compare levels of migration between countries because of different sizes of areal units used to define migration. Nonetheless, it appears that migration rates may be similar in India and Thailand but considerably lower in Nepal.

The 1981 census of India reported 50 million internal migrants during the five years prior to the census, or 7.3 per cent of the 1981 population. Of these, 56 per cent were rural-rural migrants and 20 per cent were rural-urban migrants. These figures are quite similar to those reported for Punjab in 1991. In that state, 1.3 million persons, or 6.6 per cent of the total population, had migrated in the previous five years. Of those, 52 per cent were rural-rural and 20 per cent were rural-urban migrants. The proportion of migrants to urban areas was considerably greater for longer-distance migration, however. Interstate migrants during the previous five years residing in Punjab in 1991 equalled 325,660, or about a quarter of all migrants. Among the interstate migrants, only 33 per cent had moved within rural areas, whereas 25 per cent were rural-urban migrants and 31 per cent were urban-urban migrants.

The 1990 census of Thailand reported 4.0 million migrants for the period 1985-1990, or 8.0 per cent of the population age 5 and over in 1990. Of these, nearly half were rural-rural migrants and about 20 per cent were rural-urban migrants. (The percentages are not precise because the origin of move was not recorded for about 15 per cent of all migrants.) The proportion of rural-urban migrants among all migrants increased from 1980 to 1990, while that of rural-rural migrants declined substantially. The Thailand study was able to report results of the National Migration Survey (NMS) carried out in 1992. That survey reported that 19 per cent of migrants in the previous two years were seasonal migrants, and another 17 per cent were repeat migrants, attesting to the high level of temporary migration in Thailand.

A 10 per cent sample of 1991 census records in Nepal estimated there were 97,184 migrants in the 12-month period prior to the census, or 0.5 per cent of the total population. Thus, the 5-year migration rate would have been well below 2.5 per cent of the population. Among the one-year migrants, 76 per cent had moved from a rural to a rural area, while 24 per cent had moved from a rural to an urban area.

The three studies contained in this volume are consistent with most other migration research in that they find that rural-urban migrants are concentrated in the ages from 15-29 years and are better educated, on average, than the general rural population. More males report they moved for employment than for any other reason, while females moved mostly for marriage or because their family moved.

The 1981 census of India reported characteristics of migrants only for those migrants who reported that they had moved for employment. Thus, those migrants are more likely than the average to be concentrated in the younger age groups and to be better educated. The 1981 census reported that 56 per cent of male and 48 per cent of female migrants who had moved from rural to urban areas in the previous five years for employment were between the ages of 15 and 29 years. Another 20 per cent of the females who had moved for employment were younger than 15 years. Among rural-urban migrants for employment, 25 per cent of males and 55 per cent of females were illiterate, compared with 59 per cent of males and 82 per cent of females in the overall rural population.

Migration data for Punjab in 1991 indicate that 60 per cent of males and 68 per cent of females who had moved from a rural to an urban area between states in the previous ten years were ages 15-34 in 1991. Among all rural-urban migrants in the previous five years, 39 per cent of males and 43 per cent of females were illiterate. In contrast, among the total rural population of Punjab in 1991, 49 per cent of males and 63 per cent of females were illiterate.

While more male rural-urban migrants in India in the period 1976-1981 moved for the reason of employment than any other reason, a variety of reasons were important. Forty-two per cent of male rural-urban migrants reported employment as the main reason for moving, while 25 per cent moved because their family did, and 16 per cent had moved for education. Female rural-urban migration was much more likely to be associational, with 40 per cent of the migrants moving because their family did, and 35 per cent moving for marriage.

The reasons for migration were similar among rural-urban migrants in Punjab in the period 1986-1991, when 47 per cent of the males moved for employment and 34 per cent moved because their families did. Among female rural-urban migrants, 48 per cent had moved for marriage and 36 per cent because their families did.

Lifetime migrants enumerated in the Nepal Demographic Sample Survey (DSS) of 1986/87 were relatively young at the time of the survey. Forty-eight per cent of both male and female rural-urban migrants were between the ages of 15 and 34 years.

Rates of illiteracy were relatively low among internal migrants in Nepal who had moved in the year prior to the 1991 census. The illiteracy rate for males was only 22 per cent, while that for females was 57 per cent. Illiteracy rates were lower among migrants to the *tarai* than those to the mountains or hills – 20 per cent for males and 52 per cent for females.

Reasons for migration were not elicited well by the 1981 census in Nepal, when 36 per cent of the migrants to urban areas were reported in the "other" category. Among lifetime rural-urban migrants reported in the DSS of 1986/87, 40 per cent of males had moved as dependents and 43 per cent had moved for employment-related reasons. Among the female rural-urban migrants, 61 per cent had moved for marriage and 36 per cent as dependents.

The 1990 census of Thailand found that migrants are younger than the population in general, rural-urban migrants are younger than other migrants, and migrants to Bangkok are younger than those in other streams. Among rural-urban migrants, for example, 63 per cent of males and 69 per cent of females were between the ages of 15 and 29 years at the time of the census.

The 1990 census also found a clear positive relationship between the probability of migration and level of education. Approximately 15 per cent of persons with a university education, 12 per cent with secondary education, 7 per cent with a primary school education and slightly over 4 per cent with no education migrated in the five years before the census. Education was also positively related with the distance of move, with interregional migration more likely the higher the level of education.

Economic reasons were more important for rural-urban migration in Thailand than in India and Nepal. Among rural-urban migrants in the period 1985-1990, 60 per cent of males moved to look for work or because of a job transfer. Among the females, 52 per cent had moved for those employment-related reasons and 26 per cent had accompanied a household member. In sharp contrast to the South Asian pattern, only 1.9 per cent of female rural-urban migrants in Thailand during 1985-1990 had moved for marriage.

Each of the country studies not only assessed recent trends in urbanization but also prepared or cited projections of urban trends up to at least 2011. Earlier population projections for India had not anticipated the slowdown in the urban growth rate between 1981 and 1991. Recent projections have now been prepared that take that slowdown into account. The projection cited in the India study indicates that the urban population may increase from 218 million in 1991 to 426 million in 2011. The latter figure would comprise 36.6 per cent of the total population of the country. The rate of urban growth is projected to decline from 3.6 per cent in the period 1996-2001 to 3.1 per cent in 2006-2011.

The projections of the urban population prepared for Nepal assume that net decadal migration to urban areas, as a proportion of the urban population, will decline from 17.9 per cent in 1991 to 8.6 per cent in 2001 and 4.2 per cent in 2011, in accord with the policy of the Eighth Five Year Plan to reduce unplanned migration to urban areas. The projections assume that reclassification of rural areas to urban status will accelerate between 1991 and 2001, but then decline up to 2011. The projections are made for three growth variants and for three geographical regions.

The medium variant projection indicates that the urban population would increase from 1.7 million in 1991 to 4.2 million in 2011. The projected rate of urban growth would increase from the observed rate of 4.4 per cent during 1981-1991 to 5.6 per cent during 1991-2001, then decline to 3.6 per cent during 2001-2011. The proportion of the urban population residing in the *tarai* would increase from 49 per cent in 1991 to 52 per cent in 2011.

The national population projections prepared for Thailand for use in the Seventh Plan cover the period 1980-2015. They were prepared for regions of the country but not for urban and rural areas separately. Nonetheless, some impression of the role of migration in urban and regional growth may be obtained from them. Three regions growing rapidly with heavy in-migration are Bangkok, the five provinces surrounding Bangkok, and the Eastern Seaboard. These areas combined contained about 22.3 per cent of the population of the country in 1990. That proportion is projected to increase to 24.5 per cent in 2010 if migration levels remain similar to those in the period 1975-1980. Were migration levels to increase by 15 per cent, the proportion of the national population in the three rapidly growing areas combined would reach 25.2 per cent in 2010.

C. GENDER DIMENSION OF RURAL-URBAN MIGRATION

In India, female migrants greatly outnumber male migrants. Between 1976 and 1981 there were 29.5 million female migrants and 20.5 million male migrants. The greatest disparity is among rural-rural migrants, where the number of females was double the number of males. In this stream, at least 59 per cent of the females had moved for marriage. Females slightly outnumbered males in the urban-urban stream, in which 46 per cent of the females had moved because their family had, and another 30 per cent had moved for marriage. Only among rural-urban migrants were there more males than females. The study estimated that about 10 per cent of the females in the urban-urban stream, and 12 per cent of those in the rural-urban stream, were single at the time of migration.

Apparently, women are increasingly participating in migration to urban areas. The number of women per 100 men in the urban population in India has increased from 85.8 in 1971 to 88.0 in 1981 and 89.4 in 1991. The proportion of women in the total population of the country has generally declined since 1951, with a temporary increase in 1981. The highest proportion of females (92.1 per 100 males) was found in towns with populations between 20,000 and 50,000 persons.

Females comprised 60 per cent of the migrants in Punjab who had moved in the five years prior to the 1981 census, and 66 per cent of those in the 1991 census. In both cases, nearly 60 per cent of the female migrants had moved between rural areas. In the 1991 census, the number of females exceeded the number of males in each migration stream, including among rural-urban migrants. Female migration in Punjab is overwhelmingly with families or for marriage, in all streams.

The data for Nepal are ambiguous concerning the proportion of females among rural-urban migrants. A 10 per cent sample of 1991 census records estimated that females comprised 52.5 per cent of rural-rural migrants in the one year before the census, but only 43 per cent of the rural-urban migrants. The DSS of 1986/87 estimated that females comprised 58 per cent of lifetime rural-urban migrants, however.

The study for Nepal reported in this volume also computed the net number of rural-urban migrants between 1981 and 1991 using indirect techniques. This approach also indicated that there was a majority of females among rural-urban migrants – 52.8 per cent of the total. Further research will be required to determine the sex ratio among rural-urban migrants in Nepal.

Rural-urban migration in Thailand is dominated by females, so much so that the conventional sex ratio in urban areas is only 94 males per 100 females. Males predominate among all migrants (the sex ratio is 123) but among rural-urban migrants the sex ratio is 90. The dominance of female rural-urban migration is greatest at ages 15-19 (the sex ratio equals 69) and 20-24 (the sex ratio equals 84). Males outnumber females among rural-urban migrants over age 25, with the sex ratio reaching a maximum of 137 in the 35-39 age group.

Rural-urban migration in Thailand is selective of women with more education, but this is more true for men, so that among rural-urban migrants the sex ratio increases with level of education. This finding was interpreted to mean that, while education results in higher levels of migration for the more educated, opportunities for those with low education occur primarily in rural areas for men and in urban areas for women.

Among rural women who have migrated to provincial urban areas, the proportions in professional and administrative, clerical and sales, and production occupations have gradually increased between the 1970 and 1990 censuses. Among female migrants from rural areas to Bangkok, a major shift in occupational distribution has taken place. In 1970, 19 per cent of those migrants were transport and production workers and 47 per cent were service workers. By the 1990 census, 49 per cent of these migrants were transport and production workers and only 28 per cent were service workers. The rapid increase in opportunities for female employment in factories in and around Bangkok has been a motivating force for the migration of women.

The study for Thailand demonstrated that rural-urban migration is associated with later ages at marriage for women. Fertility in Thailand has fallen sharply from 1970 to 1990 and differences between migrants and non-migrants have narrowed, but rural-urban migration, especially to Bangkok, is associated with lower fertility.

D. IMPACT OF RURAL-URBAN MIGRATION ON THE LABOUR FORCE

The study for India revealed that overall employment rates are lower in urban than in rural areas, especially for females. Male rural-urban migrants are more likely to be employed after migrating than before, but that is not true for females. In India the crude employment rates in 1991 were 53 per cent and 49 per cent for rural and urban males, respectively, and 27 per cent and 9 per cent for rural and urban females. The 1983 National Sample Survey (NSS) found that 51 per cent of males who had migrated from rural areas and 43 per cent who had migrated from urban areas had been employed before moving. After moving to urban areas, 55 per cent of male migrants were employed.

Among all female migrants (to both rural and urban areas), 25 per cent who moved from a rural area had been employed prior to moving and 10 per cent of those who had been in an urban area had been employed. After moving to urban areas, 13 per cent of female migrants were employed. Thus, among females, moving from a rural to an urban area apparently lowered the likelihood of being employed, while moving between urban areas raised the likelihood.

The 1983 NSS in India found that migrant households were less likely to be below the poverty line than the average for all households. While 34 per cent of all households were below the poverty line, only 20 per cent of migrant households were. Twenty-eight per cent of households that had moved in the previous five years were below the poverty line.

The 1991 census indicated that male labour force participation rates in Punjab were above the national average, while female rates were lower. Rural-urban migration raised male participation rates but had essentially no effect on female rates. Sixty-one per cent of male rural-urban migrants who had moved in the previous five years were employed, compared with 55 per cent of rural and 52 per cent of urban non-migrants. Among female rural-urban migrants, the participation rate was 4.5 per cent, compared with 4.4 per cent among rural and 4.5 per cent among urban non-migrants.

In terms of occupation, the 1991 census in Punjab revealed that male rural-urban migrants were more likely than urban non-migrants to be manufacturing, construction or service workers, but less likely to be trade workers. Female rural-urban migrants were more likely than urban non-migrants to be employed as agricultural workers, but less likely to be service workers.

The Nepal census reports have not provided economic activity rates for migrant streams. Among the total population, male refined activity rates were stable in both rural and urban areas between 1971 and 1981 but female activity rates increased sharply in both rural and urban areas during the same period. Between 1981 and 1991, male activity rates and urban female rates decreased sharply, enough to imply that the change was caused by a change in definition or census procedure.

In order to assess the impact of migration on the labour force structure, the study for Thailand decomposed changes in the rural and urban labour forces by occupation and sex between 1980 and 1990 into changes accounted for by non-migrants, within-sector (urban or rural) migrants and between-sector migrants. That analysis indicated that 30 per cent of the increase in the number of male production workers in urban areas was attributable to rural-urban migration, as was 24 per cent of the increase in male service workers and 17 per cent of the increase in male administrative workers in urban areas. In rural areas, rural-rural and urban-rural migrants combined accounted for 26 per cent of the increase in the number of male service workers.

Female migrants impacted the labour force primarily in production and service occupations. In urban areas, female rural-urban migrants accounted for 37 per cent of the increase in the number of production workers between 1980 and 1990, and 32 per cent of the increase in the number of service workers. In rural areas, rural-rural migrants accounted for 22 per cent of the increase in the number of female service workers. These findings are similar to those for the period 1975-1980 as assessed in an ESCAP (1988) study.

E. POLICY RECOMMENDATIONS

The detailed studies of rural-to-urban migration in India, Nepal and Thailand yielded a wide range of policy recommendations. Most of these were appropriately aimed at the particular economic and social circumstances in the country of study, although many are relevant for other developing countries undergoing the transition from a rural/agricultural economy to one based on industry and services primarily located in urban areas.

Perhaps the major issue for policy consideration is the extent to which rural-urban migration can be reduced by explicit policies of industrial decentralization. The Thailand study notes that it is not realistic to expect industries to relocate away from core regions. Instead, regional centres should be developed to take advantage of their comparative advantages, particularly in the processing of agricultural goods or in producing goods for rural consumption. This perspective stresses providing the conditions for rural industries to grow, rather than giving incentives for industries to relocate to regions with which they have few economic links. The study also notes that the policies of industrial decentralization contained in the Seventh Plan of Thailand stress the importance of local materials and comparative advantage of designated growth centres.

The study for India states that incentives in the form of subsidies and tax relief were given to private enterprises to locate in designated backward areas. New industrial firms were not allowed to locate within 25 km. of a major urban centre. The effect of these policies was to promote industrial concentration in a zone 25 km. from the major cities. Thus, the objectives of reducing urban congestion and promoting rural industrialization were not fully achieved. The India study also argues that, because of the high capital/labour ratio of modern industries, industrial relocation policies have little impact on rural-urban migration.

The Thailand study makes the case that implicit policies enacted for reasons other than their effect on population distribution probably have a greater impact than direct policies. These would include any form of taxation on rural production or subsidy of urban centres, such as government support of urban transportation and other infrastructure. The provision of health and education facilities in most countries of the region contains a strong urban bias.

In a similar vein, the India study reasons that economic reform and liberalization policies are likely to have the indirect effect of increasing economic concentration in the largest metropolitan cities and a few other manufacturing centres, and stimulating rural-urban migration.

Policies intended to promote regional development and thus to reduce out-migration may not always have the intended effect. Each of the country studies revealed that rural-urban migrants were considerably better educated than the average rural population. In that situation, improving education in rural areas is likely to promote out-migration. The Thai study cites a proposal to provide technical training to workers in the north-east of Thailand to prepare them for employment in a cluster of garment firms that would be located in that region. This targetted training, linked to industrial relocation, might reduce migration to other regions. Building roads into remote areas sometimes promotes out-migration rather than regional development.

The Thailand study notes that internal migration, especially seasonal migration, can be beneficial to both urban and rural economies as well as to the migrants themselves. Seasonal migration provides employment opportunities to rural workers during agricultural slack seasons while constituting a value addition to the labour force in such areas as construction, which is also partially seasonal in its demand for labour.

The India study states that political leaders in that country generally believe that improving living conditions in rural areas will reduce out-migration. Accordingly, India has enacted a number of policies to benefit rural areas. These include land reform, government purchases of grain, no tax on agricultural income, rural employment generation and rural infrastructure development. The incidence of rural poverty has declined steadily in India since 1972/73, and rural-urban migration declined during the period 1981-1991. Further analysis should be carried out to determine if there is a causal relationship between these two trends.

Both the India and Nepal studies cite areas in which existing data and research on rural-urban migration are insufficient. In India, censuses collect a great deal of data on internal migration and publish a separate census volume on the subject. Tabulations on the characteristics of migrants are prepared only for migrants who stated that they moved for employment, however. The reasons for migration are not well-designed or -elicited in Nepal, so that over one third of migrants are reported in the "other" category, greatly reducing the value of analysis. The 1991 census in Nepal obtained information only for lifetime migration and that occurring in the year prior to the census, but not for any intermediate reference periods. In each country, as well as most other countries in the region, researchers would benefit from the availability of public-use census data provided in appropriate computer format.

Although each study was on internal migration, all of them cited the need for improved data and research on international migration as well. The India study recommended several subjects that should be further researched. These included (i) the pattern of population redistribution resulting from macro-economic changes occurring in the country, (ii) temporary migration, (iii) the impact of rural-urban migration on female age at marriage and fertility, (iv) the impact of rural-urban migration on urban labour force structure, and (v) evaluation of population distribution policies in the country. The recommendations of the Nepal study were similar to these.

Further research is needed in Nepal to determine if males or females are predominant in rural-to-urban migration. The impact of rural-urban migration on areas of heavy out-migration requires further study in several countries. It was recommended that migration surveys be conducted in Nepal at regular intervals.

The Nepal study advocates that industrial concentration in the Kathmandu Valley be reduced by locating industry elsewhere. It also argues that Nepal should pursue labour-intensive industrialization, especially that employing more females. The study recommends that the Government support the growth of small urban centres and of small-scale industries in rural areas in order to improve the regional balance in industrialization.

The study also recommends that migration policies in Nepal be consistent with these industrialization policies. That is, migration should be diverted from the large cities of the Kathmandu Valley and stimulated in other regions of the country, especially in the mountains, hills, far west and mid-west.

Additional policies of rural development are recommended for Nepal. These would concentrate on building up infrastructure and non-agricultural activities in rural areas. Rural development programmes should involve the active participation of local bodies, the private sector and non-governmental organizations.

The Nepal study also recommends a number of urbanization policies aimed at reducing rural-urban migration while improving the quality of life in urban areas. The study recommends promoting the growth of smaller towns along the East-West Highway and selected north-south roads. Employment generation should be promoted in those towns, and they should be assisted with urban planning and services. It is recommended by the study that proper land-use zoning be implemented in all cities in Nepal in order to discourage overcrowding and environmental degradation.

REFERENCES

ESCAP (1988). *Internal Migration and Structural Changes in the Labour Force.* Asian Population Studies Series No. 90. New York: United Nations.

ESCAP (1992). *Migration and Urbanization in Asia and the Pacific: Interrelationships with Socio-economic Development and Evolving Policy Issues.* Asian Population Studies Series No. 111. New York: United Nations.

United Nations (1995). *World Urbanization Prospects: The 1994 Revision.* Sales No. E.95.XIII.12.

II. TRENDS, PATTERNS AND IMPLICATIONS OF RURAL-URBAN MIGRATION IN INDIA

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A. BACKGROUND

The research project "Trends, Patterns and Implications of Rural-Urban Migration in the ESCAP Region," conducted by ESCAP, aims to examine the role of migration and urbanization in the structural transformation of the participating countries. The main objectives of the project are: (i) to analyse trends in urbanization and the level and nature of rural-urban migration; (ii) to study the relationship between migration, urbanization and structural changes in the labour force; (iii) to examine the relationship between rural-urban migration and urban poverty; and (iv) to assess the gender dimensions of rural-urban migration. It is hoped that better utilization of census and other macro-level data will provide useful insights into the impact of population redistribution, as a basis for effective urban and rural development planning.

The India study follows the broad outline being followed by all the participating countries. There are, however, minor variations in the emphasis on a few facets of rural-urban migration depending on the availability of relevant data. This introductory section reviews the existing literature on migration in India and provides a brief description of the secondary data sources that have been used in this study. The second section analyses the trends in Indian urbanization and its regional variations and provides estimates of share of migration in urban growth. In the third section, detailed analysis of migration trends and characteristics of migrants is presented. The fourth section examines recent data on Punjab State, from the migration tables of the 1991 Census. The fifth section deals with the employment and poverty status of migrants in India. The final section summarizes the major findings of the study and discusses the various policy implications.

1. Review of literature

In 1961, the Census of India for the first time classified migrants by rural or urban place of birth, which helped in identifying four streams of migration and to realize the contribution of rural-urban migration in urban growth. The census further categorized the place of birth of migrants as: (i) within the district of enumeration, (ii) outside the district but within the state of enumeration, (iii) outside the state of enumeration, and (iv) outside India, which facilitated inter-district and inter-state spatial analysis of internal migration in India. The detailed migration data provided by the 1961 Census of India resulted in a sudden increase in research on various aspects of internal migration. The scholarly interest on migration and related questions shows no sign of abating even after three decades. Reviews of migration literature in India show that the main focus of research has, however, been changing during this period (Singh, 1980; Rao, 1981; and Singh, 1992). Six broad areas of research emerge from a review of literature on rural-urban migration in India, namely; rural-urban migration and urban growth; migration streams; regional patterns of migration; characteristics of migrants; determinants of rural-urban migration; and consequences of rural-urban migration. The available literature on each of these categories is briefly discussed in the following section.

(a) Rural-urban migration and urban growth

The demographic contribution of rural-urban migration in the process of urbanization in India has been noted by a number of scholars (for example, Davis, 1951; Bogue and Zacharia, 1962; and Bose, 1980). Efforts have also been made to estimate the share of rural-urban migration in India's urban population growth. There is, however, no consensus on what exactly is the share of rural-urban migration in India's urban population growth. For example, according to a study of the National Institute of Urban Affairs (NIUA), 40.15 per cent of the urban population increase was due to rural-urban migration during 1971-1981 (NIUA, 1988), while Visaria and Kothari (1985) estimated that the contribution of rural-urban migration to India's urban growth in the same decade was only 19.6 per cent. Such a vast difference in assessing the contribution of rural-urban migration is largely a result of wide variation in the methodology adopted by various authors.

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The available evidence suggests that the share of rural-urban migration in India's urban population growth is declining and the share of natural increase is gaining strength (Premi, 1981; Mathur, 1992). Several factors are cited to explain the declining trend in rural-urban migration, such as, implementation of development programmes in rural areas (Malhotra, 1974), saturation of the urban labour market (Salih and Lo, 1985), and growth of regional identities and other socio-political factors (Kundu, 1986). Two observations need to be noted at this point. First, the decline in proportion and rate of rural-urban migration does not mean that there is a perceptible downward trend in the volume of rural-urban migration. Second, the declining share of rural-urban migration in India's urban population growth is not extraordinary. It is merely a manifestation of the intermediate stage of urbanization and development attained by the country and conforms to the general trend observed in many developing countries (Salas, 1986).

(b) Migration streams

The bulk of the research on migration in India is concerned with the description and analysis of patterns of internal migration in terms of streams of migration, spatial patterns, characteristics of the migrants and reasons for migration. Of the four streams, rural-rural, rural-urban, urban-urban and urban-rural, the volume of rural-to-rural migration is the highest. This is because of marriage migration of women as well as because of seasonal flows of male agricultural workers (Gosal and Krishan, 1975; Bose, 1980; Premi, 1981; and Raju, 1989). Rural-to-urban migration ranks second in terms of volume but it is the most important stream of migration considering its demographic, economic and sociological implications (Zacharia, 1959; Bose, 1980). Urban-to-urban migration ranks third but it is becoming increasingly more important as people are moving from smaller urban centres to larger cities in search of better economic opportunities and services (NIUA, 1988). Urban-to-rural migration has the lowest volume of the four streams of migration. Other than temporary and seasonal workers and public servants on transfer, only a few of those who get accustomed to urban living go back to their villages, either at the end of their working life or due to their inability to secure suitable employment in urban centres (Singh, 1992).

(c) Regional patterns of migration

Spatial analysis of migration flows suggests that most migrants have been drawn to urban-industrial concentrations in Maharashtra, West Bengal and Karnataka, plantations in Assam and agriculturally developed states of Punjab and Haryana (Gosal and Krishan, 1975). The states which have sent out large numbers of migrants are Uttar Pradesh, Bihar, Kerala, Tamil Nadu and Andhra Pradesh (Skeldon, 1984). Metropolitan centres and large cities which offer a wide range of employment opportunities are the major attraction for rural-urban and urban-urban migrants. Calcutta, Bombay and Kanpur drew large numbers of migrants in the early stage of industrialization, whereas Delhi and Bangalore, the fastest growing metropolises, have been favoured destinations for migrants in the post-independence period (Singh, 1992).

(d) Characteristics of migrants

A large number of studies concerned with various aspects of rural-urban migration also touch upon the age, sex, education and occupational characteristics of the migrants (for example, Premi, 1984; Banerjee, 1986; Oberai, Prasad and Sardana, 1989). These studies indicate that migration to urban areas is highly selective in terms of age and sex. In short, relatively young unemployed or underemployed males migrate in large numbers (Oberai, Prasad and Sardana, 1989), while women stay back in the villages (Singh, 1988). However, more recent analysis of trends of migration reveals that shift to urban areas is no longer dominated by males. Increasingly large numbers of females are moving into India's urban areas, either singly or with their families. Nearly half of the 15.7 million rural-urban migrants in India in 1971-1981 were females (Pathak, 1992).

Rural-urban migration also appears to be selective of literate and educated people amongst the largely illiterate rural population (Greenwood, 1971; Singh, 1987). The evidence further suggests that the migrants have higher literacy and economic participation rates than non-migrants in the urban areas (Premi, 1984). Visaria (1990) emphasises that migrants in general have lower unemployment, and hence, cannot be held responsible for contributing to higher urban unemployment.

(e) Determinants of rural-urban migration

There is considerable debate on determinants of rural-urban migration. It is widely held that the main reasons for male migration to urban areas are economic while females tend to migrate for such non-economic reasons as marriage and shift in residence along with other members of the family (Bose, 1980; NIUA, 1988).

A large number of scholars have attempted to explain rural-urban migration in the conventional "pull-push" framework only to find that these forces are complementary rather than conflicting (Singh, 1992). An increasingly large number of research studies have revealed that both rural poverty and rural prosperity are important determinants of rural-urban migration. It has often been stated that rural poverty, high rates of under-employment and low wages are the major determinants of rural-urban migration (Sovani, 1966; Bose, 1961). The evidence also suggests that, while the poorest show greater propensity to migrate from rural to urban areas, they are not necessarily landless labourers (Oberai, Prasad and Sardana, 1989). Interestingly, a number of studies put forth exactly the opposite viewpoint. Some scholars argue that rural poverty actually acts as a deterrent to migration (Banerjee and Kanbur, 1981). They have emphasised that the relatively better off are more likely to migrate from rural to urban areas and increasing rural incomes, particularly in lower income groups, will induce more people to migrate out (Banerjee, 1986). It is stated that increased incomes enhance the preference for urban goods and services and also finance the necessary cost of migration and, therefore, result in greater likelihood of rural-urban migration (Fogarty and Mehta, 1984).

However, scholars concerned with analysing the determinants of rural-urban migration concede that it is a very complex multi-variate phenomenon and cannot be explained in a unidimensional framework. A number of factors influencing the decision making and actual shift of people from rural to urban areas need to be taken into consideration (Raju, 1989; and Yadav, 1989). It has also been realized that rural-urban migration does not take place only in response to capital investment in the organized industrial sector in the cities (Mitra *et al.*, 1980). Migrants are also attracted by a range of employment opportunities offered by the urban labour market, both in the formal and informal sectors (Majumdar, 1980; Banerjee, 1986).

(f) Consequences of rural-urban migration

Rural-urban migration has demographic, economic, social and developmental consequences for both sending and receiving regions. As in the case of the relationship between rural development and tendency to out-migrate, there are two opposing views regarding the impact of rural-urban migration on the sending rural areas. According to one view, the negative consequences of rural-urban migration for the rural areas are predominant in terms of the loss of young, male, and more educated workers (Khan, 1981). A negative implication of male out-migration is also observed concerning the increased burden of *de facto* female heads of household in rural areas, specifically in poorer peasant or landless households (Jetley, 1987). On the other hand, scholars believe that rural sending regions stand to gain significantly from rural-urban migration as remittances raise the incomes and standard of living of the out-migrating households, and often a part of the remittances is invested in productive assets and activities. The return migrants also facilitate technological change which helps in increasing agricultural productivity (Oberai, Prasad and Sardana, 1989).

The consequences of rural-urban migration for the receiving urban areas are generally believed to be negative. It has been put forward that urban poverty is actually an outflow of rural poverty (Dandekar and Rath, 1971), or it is a process of urbanizing the rural poor (Majumdar, 1983). A number of scholars have argued that the problem of urban slums and squatter settlements is a consequence of such an inflow of poor migrants from rural areas (Desai and Pillai, 1970; Singh and D'Souza, 1980; Mitra, 1988). It should be noted that most studies of this category focus only on the low income areas and households and do not include all income groups in their analysis.

The theoretical evidence provided by studies concerned with the determinants of rural-urban migration noted earlier in this review have revealed that the poor have low propensity to migrate to urban areas. The analysis of state level data also indicates that no clear-cut relationship can be established between the magnitude of rural-urban migration, incomes and urban poverty (Mathur, 1992). On the other hand, field-based studies present evidence that is contrary to the popularly held view on positive correlation between rural-urban migration and urban poverty. Surveys conducted in a fairly widespread sample of low income localities in a large number of India's urban centres show that about 30 to 40 per cent of the poor are migrants (NIUA, 1989; and NIUA, 1990). Even if the number of second generation migrants, or children of the migrant parents born in the urban areas and hence identified as non-migrants, is taken into consideration, the proportion of migrants amongst the urban poor is not likely to be more than half. Another study, covering all income group households in selected cities of various sizes, shows that only about one third of the total rural-urban migrants can be identified as poor (NIUA, 1986). Some scholars have also started questioning the proposition that mass rural-urban migration is the main cause of deterioration in urban living conditions in India (Srinivasan, 1990). However, the available empirical evidence is not adequate for supporting any one of the positions. Therefore, the debate regarding rural-urban migration, income levels and urban poverty remains inconclusive. Continued migration from rural to urban areas in India certainly suggests that high urban unemployment and poor living conditions have not yet started acting as deterrents for rural migrants (Dasgupta, 1982; Nagraj, 1987).

The existing literature on migration studies is largely based on information about lifetime migrants and inter-censal migrants. The present study, however, is based on examination of the trends, patterns and characteristics of recent migrants, that is migrants with duration of residence of up to five years.

2. Sources of data and methodology

(a) *Sources of data*

The two main sources of macro-level urbanization, migration and workforce data in India are the Population Censuses of India and National Sample Surveys (NSS). The Population Census is conduced every ten years while NSS collects data every five years. Migration data are not collected by the NSS in every round. The latest migration data were published by NSS for the 38th round (January-December 1983) and the subsequent migration round was conducted in 1993. These data are being processed and are likely to be published only by the end of 1995. The NSS, however, publishes the employment-unemployment tables for every round. Most of the NSS data are at national and state level while census data are also available at district and city levels.

The Census of India started collecting detailed migration data from 1961 onwards, when the migrants were identified by place of birth and classified according to the duration of residence in the place of enumeration. The 1971 Census also provided data on migrants by place of last residence. Data on the characteristics of migrants were also collected, revealing age, sex, marital status, educational level and economic activity of the migrants. The 1981 Census included an additional question on reasons for migration from the place of last residence. Some information on characteristics of migrants to metropolitan cities and those who migrated for the reason of employment was also provided. The only change in the format of data collection and analysis in the 1991 Census is the addition of two options in the reasons for migration question (Unni, 1992). The 1991 migration tables which are being prepared by the Census Office are listed in Annex 1.

(b) *Limitations of data*

The most crucial data limitation is the delay in processing of 1991 migration tables of the Census of India. This has forced a redefinition of the scope of the present study. As a result, it focusses on the analysis of migration patterns on the basis of the results of the 1981 Census. An attempt has also been made to incorporate some of the 1991 data on migration patterns in one of the states, namely Punjab. However, the analysis of trends in urbanization has been undertaken to cover a span of three decades, 1961-1991.

Initially, it was envisaged that additional tables would be generated using the migration data collected by the Census Organisation for making full use of the census data for migration research and analysis. Owing to the time limitations of the study and the delayed data processing schedule of the Census Office, it was not possible to generate additional tables. Therefore, only data published by the Census and NSS have been used in the study.

After the review of literature and appraisal of the existing sources of data on rural-urban migration in India, the study team reached the conclusion that the available secondary data are adequate for answering all the questions raised in the preliminary outline of the study. The topics which cannot be suitably addressed are:

i. international migration, particularly illegal migration from neighboring countries;

ii. the incidence of circular migration and commuting;

iii. the impact of rural-urban migration on age at marriage, fertility and status of women;

iv. the impact of urbanward migration on occupational mobility, productivity and income;

v. formal-informal sector employment categorization of rural-urban migrants; and

vi. differentiation between recent and second generation migrants, especially in relation to the urban poor.

These questions cannot be addressed without micro-level studies specifically designed to focus on such issues. Primary studies dealing with these questions are very few and, therefore, it will not be possible to generalize on the basis of these studies.

(c) Concepts and definitions

There are two key concepts which need to be clearly defined in the context of the present study, namely, urban areas and migrants.

***Urban areas*:** According to the Census of India, urban areas, popularly known as towns and urban agglomerations, are defined as follows:

a. All places with a municipality, corporation, cantonment board or notified area committee, etc. (statutory towns).

b. All other places which satisfy the following criteria (Census towns or non-municipal towns):

    i. a minimum population of 5,000;

    ii. at least 75 per cent of the male working population engaged in non-agricultural pursuits; and

    iii. a population density of at least 400 persons per sq. km.

There has been no change in the Census definition of urban areas since 1961. The only change during this period has been replacement of the term 'town-group' by 'urban agglomeration' in 1971. An urban agglomeration is defined as contiguous urban spread consisting of one or more town(s) together with well recognized urban outgrowths.

***Migrants*:** All those persons who have changed their usual place of residence from one town or village to another are identified as migrants by the Census of India. The Indian Census provides data on both concepts of migrants, that is by place of birth (POB) and by place of last residence (POLR). However, more detailed information is presented on the POLR migrants, which forms the statistical basis for this study.

(d) Reference period

For the purpose of this study, a reference period of five years has been applied for identifying migrants, which means that only those persons have been considered to be migrants who moved into urban areas in the five years immediately preceding the census enumeration year. It was possible to tabulate data on migrants according to this reference period by adding the first two categories of migrants classified by four broad durations of residence in the place of enumeration, that is, less than one year, 1-4 years, 5-9 years and more than ten years. However, while estimating the share of rural-urban migration in decadal urban population growth, migrants up to nine years of residence in the place of enumeration have been taken into consideration.

B. TRENDS IN URBANIZATION AND REGIONAL POPULATION DISTRIBUTION

An overview of trends in urbanization and regional population distribution in India is presented in this section to provide the macro-demographic perspective for examining the trends and patterns of rural-urban migration. This section includes temporal and spatial analysis of levels of urbanization and urban population growth patterns, an assessment of the contribution of rural-urban migration to urban growth, regional population distribution and patterns of urban growth, distribution of urban centres by city-size and the degree of concentration of urban population, and the projection of urban population with specific reference to the structural adjustment and economic liberalization process initiated in 1991.

1. Trends in urbanization

According to the 1991 census, India had a total population of 846 million, which makes India the second largest country in terms of population size, after China. India's urban population of 217.61 million in 1991 alone is greater than the total population of many countries, both developed and developing. However, with about 26 per cent of the country's population living in urban areas, India is relatively less urbanized than even several developing countries. In fact, India ranked 58th in terms of level of urbanization or percentage of urban to total population in 1991 amongst 83 low and lower-middle-income countries (World Bank, 1993). A few developing countries which had higher levels of urbanization than India were Pakistan (33 per cent), Nigeria (36 per cent), Philippines (43 per cent), and Egypt (47 per cent).

Temporal analysis of trends in urbanization in India has to be undertaken keeping in mind the adoption of a more restrictive definition of urban areas in 1961, which resulted in declassification of 810 towns of 1951 and a significant decline in the urban population growth rate during 1951-1961 (table 1). Although some of the declassified towns in 1961 were reclassified as new towns in 1971, the net increase in the number of new towns exclusive of declassified towns between 1961 and 1971 was not very large, that is, a net gain of 225 towns. There were 2,590 towns and urban agglomerations in India in 1971. With a significant net increase of 788 towns between 1971 and 1981, the number of towns and urban agglomerations became 3,378. In 1991, the number of towns and urban agglomeration was 3,768, indicating a comparatively smaller net increase of 390 towns between 1981 and 1991. The proportion of urban to total population in India was 17.97 per cent in 1961, which increased by 1.08 percentage points during 1961-1971, by 1.72 percentage points during 1971-1981 and by 1.02 percentage points during 1981-1991 to reach 25.71 per cent in 1991. A high decadal population growth of 38.23 per cent was recorded in 1961-1971. The greatest urban population growth of 46.14 per cent was attained in the decade 1971-1981. The urban population growth declined sharply by 10 percentage points to 36.47 per cent in 1981-1991.

Table 1. Trend of urbanization in India

Census years	*Total population*	*Urban population*	*No. of towns/ urban agglo-merations*	*Percentage of urban population to total population*	*Decadal urban growth (%)*	*Tempo of urbanization (per cent per year)*		
						Annual exponential growth rate	*Annual gain in percentage of urban population*	*Annual rate of gain in percentage of urban population*
1901	238 396 327	25 851 873	1 827	10.84	0.00	0.00	0.00	0.00
1911	252 093 390	25 941 633	1 815	10.29	0.35	0.03	-0.06	-0.51
1921	251 321 213	28 086 167	1 949	11.18	8.27	0.79	0.09	0.86
1931	278 977 238	33 455 989	2 072	11.99	19.12	1.75	0.08	0.72
1941	318 660 580	44 153 297	2 250	13.86	31.97	2.77	0.19	1.56
1951	361 088 090	62 443 709	2 843	17.29	41.42	3.47	0.34	2.47
1961	439 234 771	78 936 603	2 365	17.97	26.41	2.34	0.07	0.41
1971	548 159 652	109 113 977	2 590	19.91	38.23	3.21	0.19	1.08
1981	683 329 097	159 462 547	3 378	23.34	46.14	3.83	0.34	1.72
1991	846 302 688	217 611 012	3 768	25.71	36.47	3.09	0.24	1.02

Source: Census of India,1991, Paper I of 1992, vol. II, *Final Population Totals*.

Notes:

1. Including projected population of Assam, in 1981.
2. Including projected population of Jammu & Kashmir, in 1991.
3. Jammu and Kashmir is a disputed territory, the final status of which has not yet been determined.

This slowing down of the pace of urbanization in India has been a matter of intense debate amongst scholars. Some attribute it to underenumeration of urban population while others present a wide range of plausible explanations. Prime amongst these explanations are a decline in the volume of rural-urban migration, identification of relatively fewer new towns and increasing concentration of population in the rural areas adjacent to large urban centres (Premi, 1991; and Krishan, 1993). The decline in the rate of natural increase of urban population has been ruled out as one of the explanatory factors for the lower urban growth rate as it has remained more or less constant during the two decades. The average annual rate of natural increase of the urban population per thousand persons was 19.3 in 1971-1980 and 19.5 in 1981-1990, as per the Sample Registration

System of India (table 2). The exact estimates of population residing in rural areas on the periphery of large urban centres is not available. Therefore, it is not possible to assess the impact of this factor on decline in India's urban population growth. But an increasingly large number of people, particularly new in-migrants, are opting to reside in peripheral rural areas and commute to the nearby large cities to work owing to the high cost of living and high levels of congestion and pollution prevailing in the cities. The case of Delhi supports this observation, as rural areas of Delhi Union Territory experienced about double the growth rate of the metropolis of Delhi during 1981-1991. Other cities, such as Hyderabad, Pune, Bhopal, Jaipur and Chandigarh have also recorded sizable in-migration in the peripheral villages (Krishan, 1993). The changing share of rural-urban migration and reclassification in India's urban population growth will be examined in the following section. It will suffice to note here that the net increase in the number of reclassified towns in 1981-1991 was about half of that recorded in 1971-1981. This may have been an important factor in the slowing down of urban population growth during 1981-1991.

Table 2. Average annual birth rate, death rate and rate of natural increase per 1,000 persons in India, 1971-1980 and 1981-1990

Period	*Rate*	*Urban*	*Rural*
1971-1980	Birth rate	28.5	35.8
	Death rate	9.2	15.8
	Rate of natural increase	19.3	20.0
1981-1990	Birth rate	27.1	34.1
	Death rate	7.6	12.5
	Rate of natural increase	19.5	21.6

Source: 1. For 1971-1980, Census of India, 1991, Paper-2 of 1991, *Provisional Population Totals: Rural-Urban Distribution*.

2. For 1981-1990, *Sample Registration Bulletin*, volume 29, No.1, January, 1995, Registrar General of India, New Delhi.

2. Contribution of rural-urban migration to India's urban growth

Urban population growth is caused by four factors, namely natural increase in population arising from excess of births over deaths, reclassification of rural settlements as urban, rural-urban migration and expansion in the municipal boundaries of the existing towns and urban agglomerations. As noted earlier in the review of literature, there is a controversy regarding the contribution of rural-urban migration to India's urban growth. Significant variation in estimating the share of rural-urban migration in urban growth is largely due to different methods of estimating components of urban growth applied by various scholars.

Scholars in India follow two methods of estimating the number and proportion of net rural-urban migrants, that is the direct method and residual method. The direct method involves deducting out-migrants or the urban-rural stream of migrants from in-migrants or rural-urban stream of migrants to arrive at the net number of rural-urban migrants. This method usually yields an under-estimation of rural-urban migrants owing to (i) rural-urban migration being identified as urban-urban migration due to reclassification, and (ii) rural-urban migration to new towns as well as areas newly added to municipal boundaries also getting subsumed under the population increase due to reclassification and territorial change categories of urban growth.

The scholars following the residual method estimate the contribution of natural increase, reclassification and change in municipal boundaries and treat the residual as the contribution of net rural-urban migration. The weakness of this method is ambiguity in estimating the contribution of change in municipal boundaries, which determines the share of net rural-urban migration in urban growth. The data on urban population increase due to change in municipal boundaries is not given by the Census, and therefore, has to be estimated by using various techniques resulting in significant variation in the share of this component of urban growth. The Census of India has not provided 1991 urban area data for all towns and urban agglomerations as yet, which means that the share of expansion in municipal boundaries cannot be estimated separately for the 1981-1991 period.

Premi (1991) as well as Visaria (1993) have estimated components of urban growth for three decades, 1961-1991. They have used the direct method of estimating the share of the four key components of urban growth for the first two decades and the residual method for 1981-1991. These estimates of components of urban growth, therefore, can be more appropriately used for comparing the trends between 1961-1971 and 1971-1981 decades. According to Premi's estimates of the components of urban growth using the direct method, the net number of migrants to India's urban areas in 1961-1971 was 5.65 million, and in 1971-1981 it increased to 9.28 million (table 3). However, in proportionate terms, the relative share of rural-urban migration in India's urban growth in both decades was about 19 per cent. The share of natural increase declined from 61.4 per cent to 45.6 per cent, the share of new towns increased a little from 19.0 per cent to 20.8 per cent while the share of expansion in municipal boundaries rose sharply from 0.9 per cent to 14.8 per cent between the 1961-1971 and 1971-1981 decades.

Table 3. Breakdown of urban growth into its components, India, 1961-1971, 1971-1981 and 1981-1991

Components of urban growth	*Population (millions)*			*Percentage distribution*		
	1961-71	*1971-81*	*1981-91**	*1961-71*	*1971-81*	*1981-91**
Total increase	30.18	49.45	56.45	100.0	100.0	100.0
Natural increase	18.54	22.56	33.87	61.4	45.6	60.0
Population of new towns	5.73	10.29	10.61	19.0	20.8	18.8
Net rural-to-urban migration	5.65	9.28	11.97	18.7	18.8	21.2
Increase due to expansion of municipal boundaries	0.26	7.32	–	0.9	14.8	

Source: M.K. Premi, 1991.

* Excluding Assam and Jammu & Kashmir. Jammu and Kashmir is a disputed territory, the final status of which has not yet been determined.

Table 4 presents the residual method for estimating components of urban growth in India for two decades, 1971-1991. Two modifications have been made in this method for assessing the contribution of various components of urban growth more realistically. The population of declassified towns was deducted from the base year for calculating the share of natural increase of population in urban growth. The base year population of declassified towns was deducted from the population of new towns to obtain net reclassification. These two refinements can explain minor differences in the two estimates of components of urban growth in 1981-1991 presented in table 3 and table 4.

According to these estimates, the volume of net rural-urban migration, natural increase of inter-censal migrants and changes in municipal boundaries together was 17.98 million in 1971-

Table 4. All India components of urban growth, 1971-1981 and 1981-1991

Components	*Population (millions)*		*Percentage share*	
	1971-81	*1981-91*	*1971-81*	*1981-91*
Absolute increase	49.86	56.45	100.00	100.00
Natural increase	22.52	33.17	45.17	58.76
Net reclassification of new towns	9.36	9.90	18.77	17.54
Net rural-urban migration, natural increase of inter-censal migrants and changes in municipal boundaries (residual)	17.98	13.38	36.06	23.70

Notes:

1. 1971-1981 estimates are made excluding Assam, and 1981-1991 estimates are made excluding Assam and Jammu & Kashmir. Jammu and Kashmir is a disputed territory, the final status of which has not yet been determined.
2. Based on final population results of 1971 and 1981 censuses and provisional results of 1991 census.

1981 and 13.38 million in 1981-1991 (table 4). The proportion of these components together decreased from 36.06 per cent to 23.70 per cent during the same period. Assuming that the share of natural increase of inter-censal migrants and changes in municipal boundaries did not change drastically, it can be stated that the contribution of rural-urban migration in India's urban growth declined between 1971-1981 and 1981-1991, both in absolute and proportionate terms. This seems to be the major factor in slowing down the pace of urbanization in India.

The 1981-1991 estimates of components of urban growth will be refined after all the relevant data for 1991 are made available by the Census. One of the adjustments necessary to be made is excluding the number of out-migrants from the base year's population figures for avoiding over-estimation of the natural increase component of urban growth. The contribution of expansion in municipal boundaries also needs to be calculated separately. However, such modifications are unlikely to alter the broad trends presented here significantly.

3. Regional population distribution and patterns of urban growth

The regional distribution of population in 1991 reveals that there is wide variation in the population size of Indian states and union territories (table 5). The states with the largest population size are Uttar Pradesh (139.11 million), Bihar (86.37 million), Maharashtra (78.94 million), West Bengal (68.08 million), Madhya Pradesh (66.18 million), Andhra Pradesh (66.50 million), and Tamil Nadu (55.86 million). On the other hand, there are much smaller states with a population of less than a million, for example, Mizoram (0.69 million), and Sikkim (0.41 million). These small states happen to be located in the North-Eastern region of the country. Similar variations are observed in the regional distribution of urban population. Maharashtra (30.54 million) and Uttar Pradesh (27.61 million) have the highest concentration of urban population, and these two states together account for about 27 per cent of the country's total urban population.

Considering the percentage of urban to total population, however, it is found that many smaller states have high levels of urbanization. For instance, Mizoram (46.10 per cent) and Goa (41.01 per cent) have recorded the highest level of urbanization in 1991 (table 5). Amongst major states which have high levels of urbanization are Maharashtra (38.69 per cent), Gujarat (34.49 per cent), Tamil Nadu (34.15 per cent), and Karnataka (30.92 per cent). Major states which have the lowest levels of urbanization are Assam (11.10 per cent) Bihar (13.14 per cent), and Orissa (13.38 per cent). It is evident from these data that western and southern India in general are more urbanized than eastern India (map 1).

Table 5. Total and urban population of states and union territories, 1981 and 1991

India/States/Union Territories	*1981*			*1991*		
	Total population (millions)	*Urban population (millions)*	*Urban pop. as percentage of total pop.*	*Total population (millions)*	*Urban population (millions)*	*Urban pop. as percentage of total pop.*
INDIA	683.33	159.46	23.34	846.30	217.61	25.71
States						
Andhra Pradesh	53.55	12.49	23.32	66.50	17.88	26.89
Assam	18.04	1.78	9.88	22.41	2.48	11.10
Bihar	69.91	8.72	12.47	86.37	11.35	13.14
Goa	1.01	0.32	32.03	1.17	0.48	41.01
Gujarat	34.08	10.60	31.10	41.31	14.25	34.49
Haryana	12.92	2.83	21.88	16.46	4.05	24.63
Himachal Pradesh	4.28	0.33	7.61	5.71	0.45	8.69
Karnataka	37.14	10.73	28.89	44.98	13.91	30.92
Kerala	25.45	4.77	18.74	29.10	7.68	26.39
Madhya Pradesh	52.18	10.59	20.29	66.18	15.34	23.18
Maharashtra	62.78	21.99	35.03	78.94	30.54	38.69

(Continued)

Table 5 *(continued)*

India/States/Union Territories	*1981*			*1991*		
	Total population (millions)	*Urban population (millions)*	*Urban pop. as percentage of total pop.*	*Total population (millions)*	*Urban population (millions)*	*Urban pop. as percentage of total pop.*
Manipur	1.42	0.38	26.42	1.84	0.51	27.52
Meghalaya	1.34	0.24	18.07	1.77	0.33	18.60
Mizoram	0.49	0.12	24.67	0.69	0.32	46.10
Nagaland	0.77	0.12	15.52	1.21	0.21	17.21
Orissa	26.37	3.11	11.79	31.66	4.23	13.38
Punjab	16.79	4.65	27.68	20.28	6.00	29.55
Rajasthan	34.26	7.21	21.05	44.00	10.01	22.88
Sikkim	0.32	0.05	16.15	0.41	0.04	9.10
Tamil Nadu	48.41	15.95	32.95	55.86	19.08	34.15
Tripura	2.05	0.23	10.99	2.76	0.42	15.29
Uttar Pradesh	110.86	19.90	17.95	139.11	27.61	19.84
West Bengal	54.58	14.45	26.47	68.08	18.71	27.48
Union Territories						
Andaman & Nicobar Islands	0.19	0.05	26.30	0.28	0.07	26.71
Chandigarh	0.45	0.42	93.63	0.64	0.58	89.69
Dadra & Nagar Haveli	0.10	0.01	6.67	0.14	0.01	8.47
Daman & Diu	0.08	0.03	36.75	0.10	0.05	46.80
Delhi	6.22	5.77	92.73	9.42	8.47	89.93
Lakshadweep	0.04	0.02	46.28	0.05	0.03	56.31
Pondicherry	0.60	0.32	52.28	0.81	0.52	64.00
Arunachal Pradesh	0.63	0.04	6.56	0.86	0.11	12.80
Jammu & Kashmir	5.99	1.26	21.05	7.72	1.84	23.83

Sources: i) Census of India, 1991, Paper I, vol. I, *Final Population Totals*.
ii) Census of India, 1981.

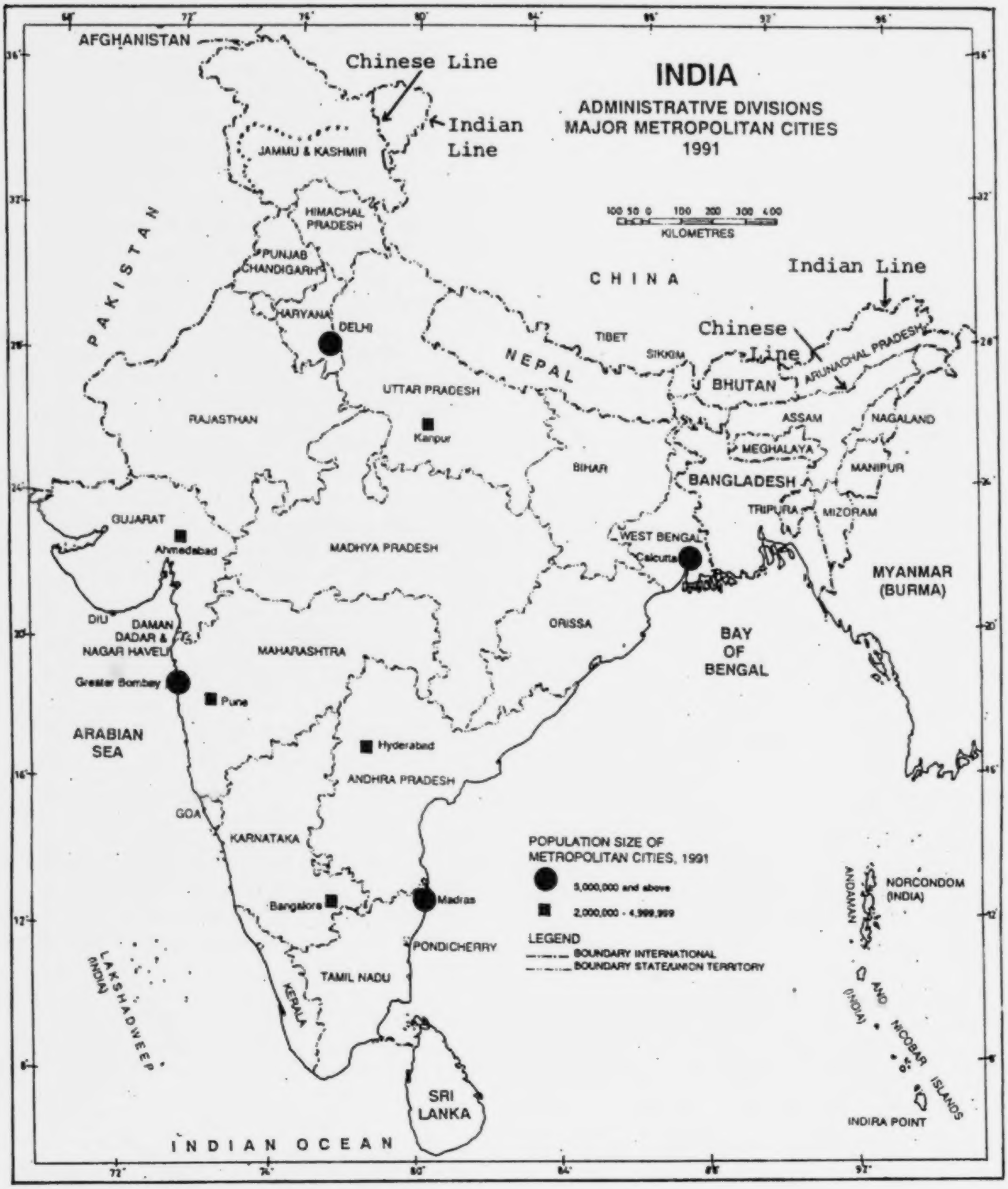
Notes: Including projected population of Assam in 1981 and Jammu & Kashmir in 1991. Jammu and Kashmir, and Arunachal Pradesh, are disputed territories, the final status of which has not yet been determined.

As stated earlier, the national urban population growth rate declined significantly between 1971-1981 and 1981-1991. The general downward trend in urban population growth is reflected at the state level as well (table 6). Only smaller states in the north-east with relatively lower levels of urbanization experienced high urban growth in 1981-1991, for example, Mizoram (161.01 per cent) and Tripura (86.96 per cent). The states which experienced higher urban growth in 1981-1991 against the general trend are Kerala (from 37.64 to 60.97 per cent), Himachal Pradesh (from 34.76 to 37.80 per cent), and Assam (from 38.25 to 39.58 per cent). Sikkim is the only state which experienced negative urban population growth, that is from high growth of 159.73 per cent in 1971-1981 to -27.56 per cent in 1981-1991. One of the possible reasons for such a growth pattern is prolonged political agitation which may have caused out-migration of large numbers of urban population, either to other regions of India or to the neighbouring countries of Nepal and Bhutan.

4. Population size and concentration of urban population

The Census of India classifies towns and urban agglomerations in six broad population size-class categories: Class I 100,000+; Class II 50,000-99,999; Class III 20,000-49,999; Class IV 10,000-19,999; Class V 5,000-9,999 and Class VI less than 5,000. Class I settlements are further broken down into urban centres with population of 100,000 and more called cities and urban

Map 1. India: administrative divisions and major metropolitan cities, 1991


INDIA
ADMINISTRATIVE DIVISIONS
MAJOR METROPOLITAN CITIES
1991
KILOMETRES
AFGHANISTAN
Chinese Line
Indian Line
JAMMU & KASHMIR
HIMACHAL PRADESH
PUNJAB
CHANDIGARH
HARYANA
DELHI
PAKISTAN
CHINA
TIBET
NEPAL
SIKKIM
BHUTAN
ARUNACHAL PRADESH
RAJASTHAN
UTTAR PRADESH
Kanpur
BIHAR
ASSAM
NAGALAND
MEGHALAYA
MANIPUR
BANGLADESH
TRIPURA
MIZORAM
GUJARAT
Ahmedabad
MADHYA PRADESH
WEST BENGAL
Calcutta
MYANMAR (BURMA)
DIU
DAMAN
DADAR & NAGAR HAVELI
ORISSA
BAY OF BENGAL
MAHARASHTRA
Greater Bombay
Pune
ARABIAN SEA
Hyderabad
ANDHRA PRADESH
GOA
KARNATAKA
POPULATION SIZE OF METROPOLITAN CITIES, 1991
5,000,000 and above
2,000,000 - 4,999,999
LEGEND
BOUNDARY INTERNATIONAL
BOUNDARY STATE/UNION TERRITORY
Bangalore
Madras
PONDICHERRY
LAKSHADWEEP (INDIA)
TAMIL NADU
KERALA
NORCONDOM (INDIA)
ANDAMAN AND NICOBAR ISLANDS (INDIA)
SRI LANKA
INDIRA POINT
INDIAN OCEAN

Based upon Survey of India map Published in the Census of India, Paper No. 2 of 1991.

The boundaries shown and designations used on this map do not imply official endorsement or acceptance by the United Nations.

Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

Table 6. Decadal urban population growth 1971-1981, 1981-1991

India/States/ Union Territories	*1971-1981 Decadal growth (%)*	*1981-1991 Decadal growth (%)*
INDIA	46.14	36.47
States		
Andhra Pradesh	48.62	43.24
Assam	38.25	39.58
Bihar	54.76	30.21
Goa	58.82	48.63
Gujarat	41.42	34.38
Haryana	59.47	43.41
Himachal Pradesh	34.76	37.80
Karnataka	50.65	29.62
Kerala	37.64	60.97
Madhya Pradesh	56.03	44.89
Maharashtra	39.99	38.87
Manipur	165.36	34.67
Meghalaya	63.98	36.76
Mizoram	222.61	161.01
Nagaland	133.95	73.18
Orissa	68.54	36.16
Punjab	44.51	28.95
Rajasthan	58.69	39.62
Sikkim	159.73	-27.56
Tamil Nadu	27.98	19.60
Tripura	38.93	86.96
Uttar Pradesh	60.62	38.73
West Bengal	31.73	29.49
Union Territories		
Andaman & Nicobar Islands	89.31	51.02
Chandigarh	81.52	36.18
Dadra & Nagar Haveli	0.00	69.58
Daman & Diu	23.34	63.81
Delhi	58.16	46.87
Lakshadweep	0.00	56.28
Pondicherry	59.39	63.58
Arunachal Pradesh	139.63	167.04
Jammu & Kashmir	46.86	45.94

Sources:

i) Census of India, 1991, Paper I, vol. I, *Final Population Totals*

ii) Census of India, 1981.

Notes:

1. Including projected population of Assam in 1981 and Jammu & Kashmir in 1991.
2. Jammu and Kashmir, and Arunachal Pradesh, are disputed territories, the final status of which has not yet been determined.

centres with population of 1,000,000 and more known as metropolises

In 1991, there were 300 class I cities, 345 class II towns, 944 class III towns, 1,171 class IV towns, 739 class V towns and 198 class VI towns in India (table 7). Class I cities together accounted for about 65 per cent of India's urban population. In 1981, 218 class I cities claimed a share of about 60 per cent of the country's urban population. The increasing concentration of urban population in the highest size-class category is a result of both significant population growth of the existing cities, and high population growth of smaller urban centres leading to inter-class mobility of smaller urban centres. On the other hand, the number as well as population share of smaller towns of class V and VI categories declined between 1981 and 1991. This was caused by upward mobility of some towns and addition of relatively few new towns to these categories.

The number of metropolitan centres, or cities with population of one million and above in India has been growing rapidly. There were 9 metropolises in 1971, 12 in 1981 and 23 in 1991 (table 8). If the same trend continues, there will be about 45 metropolises in India by the year 2001. The total population of 23 metropolises in 1991 was about 71 million, which was one third of the total urban population of the country. The four largest metropolises, namely, Bombay, Calcutta, Delhi and Madras, alone accounted for over one sixth of India's urban population. However, the share of these four cities' population has been more or less the same in each of the three Census years. The rapid addition of new metropolitan centres indicates a dispersal of concentration, implying that high concentration of population is also taking place in several cities, other than in the four largest metropolises. This is possible, as the population growth rate of the largest metropolises is slowing down while the growth rate of smaller cities is accelerating. However, the four largest cities, Bombay, Calcutta, Delhi and Madras, which contained populations of more than five million in 1991, are known as "mega-cities" and continue to occupy a special place in the national economy.

Calcutta was the largest city in India until 1981. In 1991, Bombay reached the position of the largest city. The percentage share of population of the largest city in India's urban population was 6.80 per cent in 1971, 5.77 per cent in 1981, and 5.79 per cent in 1991. Also, the difference between the population size of the largest and the second largest cities has not been very large. These are indicators of low primacy existing at the national level.

Table 7. Number and population of towns and urban agglomerations by broad size-class categories, India, 1981 and 1991

Size-class/population		1981			1991		
		Number	*Population (millions)*	*% of population to total urban population*	*Number*	*Population (millions)*	*% of population to total urban population*
I	100 000+	218	95.33	60.45	300	14.07	64.91
II	50 000-99 999	270	18.19	11.54	345	23.63	10.95
III	20 000-49 999	743	22.56	14.31	944	28.69	13.30
IV	10 000-19 999	1 059	15.01	9.52	1 171	17.07	7.91
V	5 000-9 999	758	5.74	3.64	739	5.65	2.62
VI	Less than 5 000	253	0.85	0.54	198	0.66	0.31
Total		3 301	157.68	100.00	3 697	215.77	100.00

Sources: i) Census of India, 1981.

ii) Census of India, 1991, *Functional Classification of Urban Agglomeration/Towns of India.*

Note: Excluding Assam in 1981 and Jammu & Kashmir in 1991. Jammu and Kashmir is a disputed territory, the final status of which has not yet been determined.

Table 8. Urban agglomerations/cities having population of more than a million in 1991 arranged in descending order of their 1991 population

Rank in 1991	*City*	1971		1981		1991	
		Population	*Percentage to total urban population*	*Population*	*Percentage to total urban population*	*Population*	*Percentage to total urban population*
1	Greater Bombay	5 970 575	5.47	8 243 405	5.17	12 596 243	5.79
2	Calcutta	7 420 300	6.80	9 194 018	5.77	11 021 918	5.06
3	Delhi	3 647 023	3.34	5 729 283	3.59	8 419 084	3.87
4	Madras	3 169 930	2.91	4 289 347	2.69	5 421 985	2.49
5	Hyderabad	1 796 339	1.65	2 545 836	1.60	4 344 437	2.00
6	Bangalore	1 664 208	1.53	2 921 751	1.83	4 130 288	1.90
7	Ahmedabad	1 752 414	1.61	2 548 057	1.60	3 312 216	1.52
8	Pune	1 135 034	1.04	1 686 109	1.06	2 493 987	1.15
9	Kanpur	1 275 242	1.17	1 639 064	1.03	2 029 889	0.93
10	Nagpur	930 459	0.85	1 302 066	0.82	1 664 006	0.76
11	Lucknow	813 982	0.75	1 007 604	0.63	1 669 204	0.77
12	Surat	493 001	0.45	913 806	0.57	1 518 950	0.70
13	Jaipur	636 768	0.58	1 015 160	0.64	1 518 235	0.70
14	Kochi	505 838	0.46	685 836	0.43	1 140 605	0.52
15	Coimbatore	736 203	0.67	920 355	0.58	1 100 746	0.51
16	Vadodara	467 487	0.43	744 881	0.47	1 126 824	0.52
17	Indore	560 936	0.51	829 327	0.52	1 109 056	0.51
18	Patna	551 210	0.51	918 903	0.58	1 099 647	0.51
19	Madurai	711 501	0.65	907 732	0.57	1 085 914	0.50
20	Bhopal	384 859	0.35	671 018	0.42	1 062 771	0.49
21	Visakhapatnam	363 467	0.33	603 630	0.38	1 057 118	0.49
22	Varanasi	635 175	0.58	797 162	0.50	1 030 863	0.47
23	Ludhiana	401 176	0.37	607 052	0.38	1 042 740	0.48
Total		36 023 127	33.01	50 721 402	31.81	70 996 726	32.63

Source: Census of India, Paper-I, vol. I and II, *Final Population Totals,* 1991.

5. Urban population projections

As stated earlier in this section, in 1991 the urban population of India was 217.61 million and the percentage of urban to total population was 25.71 per cent. Various urban population projections attempted in the 1980s assumed that India's urban population would continue to grow at least at the same rate as recorded during 1971-1981 (NIUA, 1988). The decline in the urban growth rate during 1981-1991 not only came as a surprise to most scholars and policy makers, it also led to scaling down of urban population projections for the subsequent years. Although almost all the available projections have taken into consideration the lower urban population growth of about 36 per cent recorded during 1981-1991, most urban population projections predict that urban population growth will be about 40 per cent during each of the next two decades, that is until 2011.

According to one of the population projections adjusted to 1981-1991 growth trends, India's total population will be 1,006 million, the urban population will be 307 million and percentage of urban to total population will be 30.5 per cent by the year 2001 (table 9). The urban population is expected to increase to 426 million by the year 2011, which will account for 36.6 per cent of India's total population.

It is important to note that if the impact of macro-economic policies adopted in 1991 is also taken into consideration, the urban population projection will have to be modified once again. The new industrial and trade liberalization policies are expected to accelerate the pace of industrial and economic growth in general. This will also mean a higher rate of urban population growth in the 1990s, as against the slower pace of urban population growth of the 1980s. These policies will also influence the spatial pattern of urban growth. Larger cities with better infrastructure will attract most of the investments causing greater concentration of economic activities and urban population than observed in the previous decade (Mehta and Pathak, 1994). If the present trends in the Indian economy are not altered, India's urban population is likely to grow at the rate of 40-45 per cent between 1991 and 2001, and at the further accelerated rate of 45-50 per cent between 2001 and 2011. This means that India's urban population can be projected to be approximately 365 million in 2001 and 530 million in 2011. Rapid growth of urban population will also lead to India attaining a higher level of urbanization than projected so far. According to these revised urban population projections, India's level of urbanization is expected to be about 36 per cent in 2001 and about 46 per cent in 2011.

Table 9. Urban population projection, India, 1996-2011

Year	*Projected population (million)*		*Percentage of urban to total population*
	Total	*Urban*	
1996	925	257	27.8
2001	1 006	307	30.5
2006	1 086	364	33.5
2011	1 164	426	36.6

Source: Tata Services Limited, *Statistical Outline of India, 1994-95*, Department of Economics and Statistics, Bombay.

It is also predicted that along with structural transformation of the Indian economy there will be structural changes in the pattern of urbanization as well. On the one hand, there will be greater concentration of urban population in larger cities, due to rural-urban as well as urban-urban migration from smaller towns. On the other hand, many new towns of relatively smaller sizes will emerge in response to the changing market conditions. In both cases, with the faster pace of urbanization the magnitude of rural-urban migration in India is likely to increase between 1991 and 2011.

C. TRENDS AND PATTERNS OF RURAL-URBAN MIGRATION IN INDIA

This section on trends and patterns of rural-urban migration in India includes analysis of migration streams and volumes, spatial patterns of migration, characteristics of migrants, reasons for migration, trends in female migration and volume and patterns of international migration. The analysis of trends and patterns of migration is largely based on the 1981 Census data. Although some migration data are also provided by the National Sample Survey, 1983, we have not incorporated them in this section as they present more or less the same trends and patterns as revealed by the Census data. The 1991 migration tables of the Census of India are not available as yet. The 1971 migration tables could not be fully utilized owing to the non-comparability of the tabulation formats of the 1971 and 1981 migration tables. The 1971 Census published detailed data on characteristics of migrants, such as age, sex, marital status, educational level and economic activity of all the migrants. These tables provide information either at an aggregate level for all-time migrants by POLR, or for migrants classified into three broad groups of duration of residence in the place of enumeration, that is less than one year, one to nine years and ten years and more. Such a classification of migrants does not conform to the five-year reference period adopted for defining migrants for the purpose of this study.

1. Migration streams and volumes

According to the 1971 Census, there were 43.78 million persons who were identified as migrants using the criterion adopted in this study (table 10). The absolute number of migrants increased to 50.01 million in 1981 (table 11). Classification of all-India migrants into the four streams of migration reveals that in both census years rural-rural migration ranked first, followed by rural-urban, urban-urban and urban-rural streams of migration. However, the proportion of rural-rural migration declined from 61.19 per cent in 1971 to 55.55 per cent in 1981. On the other hand, the proportion of rural-urban migration increased from 16.24 per cent in 1971 to 19.83 per cent in 1981. Urban-urban migration also increased from 13.87 per cent in 1971 to 15.85 per cent in 1981 while urban-rural migration remained constant in proportionate terms at about 9 per cent during the same period. The same pattern of change in the relative significance of various streams of migration is observed if the analysis is undertaken for male and female migrants separately. The analysis of the four streams of migration between 1971 and 1981, indicating a decline in rural-rural migration and an increase in rural-urban and urban-urban migration, is a reflection of the process of urbanization and structural change taking place in the country during the period concerned.

Table 10. Streams and volume of internal migration, 1971 (Duration of residence below 5 years)

(numbers in millions)

Last residence elsewhere in India	*Migrants*		
	Male	*Female*	*Total*
Rural-rural	9.47	17.32	26.79
	(50.87)	(68.83)	(61.19)
Rural-urban	4.00	3.11	7.11
	(21.45)	(12.37)	(16.24)
Urban-urban	3.24	2.83	6.07
	(17.40)	(11.26)	(13.87)
Urban-rural	1.91	1.90	3.79
	(10.28)	(7.53)	(8.70)
Total	18.61	25.16	43.78
	(100.00)	(100.00)	(100.00)

Source: Census of India, 1971, Series I, Part II-D(i), *Migration Tables.*

Notes:

1. Percentages have been given in parentheses.
2. The percentages have been calculated from the absolute figures.

Table 11. Streams and volume of internal migration, 1981 (Duration of residence below 5 years)

(numbers in millions)

Last residence elsewhere in India	*Migrants*		
	Male	*Female*	*Total*
Rural-rural	9.24	18.54	27.78
	(44.97)	(62.93)	(55.55)
Rural-urban	5.30	4.61	9.91
	(25.80)	(15.65)	(19.83)
Urban-urban	3.92	4.01	7.93
	(19.10)	(13.59)	(15.85)
Urban-rural	2.08	2.31	4.39
	(10.13)	(7.83)	(8.77)
Total	20.54	29.47	50.01
	(100.00)	(100.00)	(100.00)

Source: Census of India, 1981, Series I, Part V A & B(i), *Migration Tables.*

Notes:

1. Place of last residence unclassifiable as rural or urban is included in the 'total'.
2. India excludes the figure of Assam.
3. The percentages given in brackets have been calculated from the actual numbers.

For the year 1981, the data on migration by four streams is analysed in greater detail, that is at the intrastate and interstate levels (tables 12 and 13). The intrastate data are further classified into intradistrict and interdistrict levels (tables 14 and 15). Such classification of migration streams provides an insight into the patterns of migration at different spatial scales, including movement of people between the smallest areal units, that is

Table 12. Intrastate migration, 1981 (Duration of residence below 5 years)

(numbers in millions)

Last residence within the state of enumeration but outside the place of enumeration	*Migrants*		
	Male	*Female*	*Total*
Rural-rural	8.31 (49.23)	17.46 (66.70)	25.77 (59.86)
Rural-urban	4.06 (24.04)	3.78 (14.42)	7.83 (18.19)
Urban-urban	2.84 (16.80)	2.97 (11.36)	5.81 (13.49)
Urban-rural	1.68 (9.93)	1.97 (7.52)	3.64 (8.46)
Total	16.88 (100.00)	26.18 (100.00)	43.06 (100.00)

Sources: Census of India, 1981, Series I, Part V A & B(i), *Migration Tables*.

Notes:

1. Place of last residence unclassifiable as rural or urban is included in the total.
2. Excludes data for Assam.
3. The percentages given in brackets have been calculated from the actual numbers.

Table 13. Interstate migration, 1981 (Duration of residence below 5 years)

(numbers in millions)

Last residence in state in India beyond the state of enumeration	*Migrants*		
	Male	*Female*	*Total*
Rural-rural	0.92 (25.28)	1.08 (32.89)	2.00 (28.89)
Rural-urban	1.24 (33.94)	0.84 (25.48)	2.08 (29.93)
Urban-urban	1.09 (29.69)	1.03 (31.33)	2.12 (30.47)
Urban-rural	0.41 (11.09)	0.34 (10.30)	0.74 (10.71)
Total	3.66 (100.00)	3.29 (100.00)	6.94 (100.00)

Sources: Census of India, 1981, Series I, Part V A & B(i), *Migration Tables*.

Notes:

1. Place of last residence unclassifiable as rural or urban is included in the total.
2. Excludes data for Assam.
3. The percentages given in brackets have been calculated from the actual numbers.

from a village/town to another within the same district. A comparative analysis of migration stream data presented at four spatial levels reveals that intrastate and intradistrict patterns of migration broadly conform to the national pattern. Interstate and interdistrict migration present a very different picture, where the rural-rural migration stream is much smaller and urban-urban and rural-urban streams are much larger than the national average. For instance, in interstate migration, synonymous with long distance movement of people, the urban-urban stream had the highest proportion, 30.47 per cent, followed by the rural-urban stream with 29.93 per cent, the rural-rural stream with 28.89 per cent and the urban-rural stream with 10.71 per cent (table 13).

Table 14. Intradistrict migration, 1981 (Duration of residence below 5 years)

(numbers in millions)

Last residence elsewhere in the district of enumeration	*Migrants*		
	Male	*Female*	*Total*
Rural-rural	6.19 (59.32)	13.78 (75.48)	19.97 (69.60)
Rural-urban	2.28 (21.91)	2.21 (12.11)	4.50 (15.67)
Urban-urban	1.02 (9.78)	1.10 (6.02)	2.12 (7.39)
Urban-rural	0.94 (8.99)	1.17 (6.39)	2.10 (7.34)
Total	10.43 (100.00)	18.26 (100.00)	28.69 (100.00)

Source: Census of India, 1981, Series I, Part V A & B(i), *Migration Tables*.

Notes:

1. Place of last residence unclassifiable as rural or urban is included in the total.
2. Excludes data for Assam.
3. The percentages given in brackets have been calculated from the actual numbers.

2. Spatial patterns of migration

The migration stream data retabulated into three exclusive categories of intradistrict, interdistrict and interstate migration can reveal the spatial patterns and distance of migration (tables 16 and 17). This analysis has been undertaken for rural-urban and urban-urban streams of migration for 1971 and 1981.

Table 15. Interdistrict migration, 1981 (Duration of residence below 5 years)

(numbers in millions)

Last residence in other district of the state of enumeration	*Migrants*		
	Male	*Female*	*Total*
Rural-rural	2.13	3.68	5.80
	(32.93)	(46.47)	(40.39)
Rural-urban	1.77	1.56	3.34
	(27.49)	(19.74)	(23.22)
Urban-urban	1.82	1.87	3.69
	(28.14)	(23.68)	(25.68)
Urban-rural	0.74	0.80	1.54
	(11.44)	(10.11)	(10.71)
Total	6.45	7.92	14.37
	(100.00)	(100.00)	(100.00)

Source: Census of India, 1981, Series I, Part V A & B(i), *Migration Tables.*

***Notes*:**

1. Place of last residence unclassifiable as rural or urban is included in the total.
2. Excludes data for Assam.
3. The percentages given in brackets have been calculated from the actual numbers.

In the rural-urban stream of migration, short distance migration of people within the district predominated both in 1971 and 1981, followed by medium distance movement of people from one district to another but within the state of enumeration. Long distance migration between states had the smallest proportion of about one fifth of the total migrants. In the urban-urban stream of migration, interdistrict migration accounted for the largest proportion of migrants, followed by interstate migration and intradistrict migration in 1971. In the 1981, the share of urban-urban stream at the interdistrict level remained equally high, but the proportion of interstate migration declined by about 5 percentage points while the percentage share of intradistrict migration increased by about 4 percentage points.

Flows of lifetime in-migration, out-migration and net migration estimated for the major states in India for the 1971-1981 period give some idea of the key sending and receiving states. For male migrants, the major receiving states were Maharashtra, West Bengal, Gujarat, Orissa and Punjab (table 18). The major sending regions for male migrants were Uttar Pradesh, Bihar, Tamil Nadu, Madhya Pradesh and Andhra Pradesh. The

Table 16. Distribution of internal migrants to urban areas by place of last residence, 1971 (Duration of residence below 5 years)

(numbers in millions)

Migration pattern and place of last residence	*Streams*	*Migrants*		
		Male	*Female*	*Total*
Intradistrict (Elsewhere in the district of enumeration)	Rural-urban	1.72	1.53	3.25
		(43.03)	(49.17)	(45.72)
	Urban-urban	0.70	0.66	1.36
		(21.61)	(23.40)	(22.44)
Interdistrict (In other districts of the state of enumeration)	Rural-urban	1.29	1.01	2.30
		(32.30)	(32.41)	(32.35)
	Urban-urban	1.47	1.33	2.79
		(45.27)	(46.86)	(46.01)
Interstate (State in India beyond the state of enumeration)	Rural-urban	0.98	0.57	1.56
		(24.67)	(18.42)	(21.93)
	Urban-urban	1.07	0.84	1.92
		(33.12)	(29.74)	(31.55)
Total	Rural-urban	3.99	3.11	7.11
		(100.00)	(100.00)	(100.00)
	Urban-urban	3.24	2.83	6.07
		(100.00)	(100.00)	(100.00)

Source: Census of India, 1971, Series I, Part II-D(i), *Migration Tables.*

Notes:

1. Percentages are given in parentheses.
2. Percentages have been calculated from the actual numbers.

Table 17. Distribution of internal migrants to urban areas by place of last residence, 1981 (Duration of residence below 5 years)

(numbers in millions)

Migration pattern and place of last residence	*Streams*	*Migrants*		
		Male	*Female*	*Total*
Intradistrict	Rural-urban	2.28	2.21	4.50
(Elsewhere in the district of enumeration)		(43.11)	(47.96)	(45.37)
	Urban-urban	1.02	1.10	2.12
		(26.00)	(27.47)	(26.75)
Interdistrict	Rural-urban	1.77	1.56	3.34
(In other districts of the state of enumeration)		(33.48)	(33.88)	(33.66)
	Urban-urban	1.82	1.87	3.69
		(46.31)	(46.80)	(46.55)
Interstate	Rural-urban	1.24	0.84	2.08
(State in India beyond the state of enumeration)		(23.41)	(18.16)	(20.97)
	Urban-urban	1.09	1.03	2.12
		(27.69)	(25.73)	(26.70)
Total	Rural-urban	5.30	4.61	9.91
		(100.00)	(100.00)	(100.00)
	Urban-urban	3.92	4.00	7.93
		(100.00)	(100.00)	(100.00)

Source: Census of India, 1981, Series I, Part V A & B(i), *Migration Tables*.

Notes:

1. Percentages are given in parentheses.
2. Percentages have been calculated from actual numbers.
3. Place of last residence unclassifiable as rural or urban is included in the total.
4. Excludes data for Assam.

Table 18. Change in net number of lifetime migrants between 1971 and 1981, by sex and state

State	*Change in net number of migrants, 1971-1981*	
	Male	*Female*
Andhra Pradesh	-74 784	-90 606
Bihar	-165 099	-107 095
Gujarat	+129 016	+75 969
Haryana	+29 183	-23 264
Karnataka	+33 630	+55 827
Kerala	-46 174	-83 497
Madhya Pradesh	-62 767	-74 644
Maharashtra	+494 611	+364 984
Orissa	+97 273	+110 445
Punjab	+44 918	-21 645
Rajasthan	+19 277	+1 127
Tamil Nadu	-72 114	-10 566
Uttar Pradesh	-835 908	-436 319
West Bengal	+207 118	+335 188

Source: Census of India, 1981.

Notes:

1. Figures for in-migration include migrants born outside India.
2. 10-year survival ratios are used for adjusting the number of net inter-decadal migrants.
3. Positive sign indicates net in-migration and negative sign indicates net out-migration.

spatial patterns of female migration are quite similar to the patterns of male migration. For female migrants during the same period, the major receiving regions were Maharashtra, West Bengal, Orissa, Gujarat and Karnataka. The major sending regions were Uttar Pradesh, Bihar, Andhra Pradesh, Kerala and Madhya Pradesh. On the basis of these observations, it is possible to state that most of the male migration from the relatively less developed sending states is likely to have been toward urban destinations in the highly industrialized and urbanized states of Maharashtra, Gujarat and West Bengal. A sizeable proportion of these migrants must have been attracted to the major metropolitan cities located in these states, namely Bombay, Calcutta and Ahmedabad. Male migration to the agriculturally developed state of Punjab must have been attracted to employment opportunities in the rural areas of the state, whereas in the case of the relatively less developed state of Orissa, the destination is likely to have been both urban and rural areas.

3. Characteristics of migrants

The composition of migration streams in terms of sex, age, education and labour force participation is a useful indicator for understanding the nature of migration. Unfortunately, the 1981 Census of India has not provided data on these characteristics of all migrants. The data are available only for those migrants who reported employment as the reason for their migration. In the absence of better data, we have used the limited data provided by the Census.

(a) Sex

As shown in an earlier part of this section, 50.01 million persons were identified as 5-year migrants in India in 1981 (table 11). Of these, 29.47 million were females and 20.54 million were males. The predominance of females amongst migrants is largely due to marriage migration of females, particularly in the rural-rural stream of migration. There were relatively more male migrants in the rural-urban stream, that is 5.30 million male migrants as against 4.61 million female migrants. However, in the urban-urban stream also, there were more females than males, that is 4.01 million females as against 3.92 million male migrants. A possible explanation of the relatively larger number of females in the urban-urban stream is increasing autonomous migration of females from smaller urban centres to larger cities in search of better educational and employment opportunities. Another explanation is the older age of male migrants in the urban-urban stream of migration, which is likely to induce more family migration than migration of relatively younger unmarried men.

(b) Age

The age distribution of male and female migrants reporting employment has been examined for two streams of migration, rural-urban and urban-urban (table 19). The age distribution of employment oriented migrants in both streams reveals that a large majority of male and female migrants are below the age of 40 years. About 60 per cent of the male and female migrants in both streams are in the prime working age groups of

Table 19. Migrants reporting employment as reason for migration, by age and sex, 1981 (Duration of residence below 5 years)

Age group (years)	*Rural-urban*		*Urban-urban*	
	Male	*Female*	*Male*	*Female*
0-14	105 045 (4.69)	59 836 (20.47)	60 364 (3.88)	45 300 (18.83)
15-19	253 913 (11.32)	44 001 (15.05)	89 405 (5.75)	22.621 (9.40)
20-24	524 846 (23.41)	57 583 (19.70)	239 754 (15.43)	45 862 (19.07)
25-29	480 837 (21.45)	38 820 (13.28)	330 147 (21.24)	45 305 (18.83)
30-34	309 111 (13.79)	27 951 (9.56)	271 393 (17.46)	27 261 (11.33)

(Continued)

Table 19 *(continued)*

Age group (years)	*Rural-urban*		*Urban-urban*	
	Male	*Female*	*Male*	*Female*
35-39	215 349 (9.60)	20 407 (6.98)	198 872 (12.80)	18 262 (7.59)
40+	347 635 (15.50)	42 479 (14.53)	362 921 (23.35)	35 688 (14.84)
Age not stated	5 351 (0.24)	1 229 (0.42)	1 307 (0.08)	231 (0.10)
All ages	2 242 087 (100.00)	292 306 (100.00)	1 554 163 (100.00)	240 530 (100.00)

Source: Census of India, 1981, Series-I, *Migration Tables.*

Note: Percentages have been given in parentheses.

20-39 years. A significant proportion of females in both streams is also found in the age group of 0-14 years. The child workers, both male and female, are likely to be part of a movement of entire migrant families. They may have also migrated alone for employment in certain economic sectors which specially employ child labour, such as domestic service, hotels and restaurants, the carpet weaving industry, matchstick, fireworks industry and so on.

(c) Education

The educational level data pertaining to migrants in rural-urban and urban-urban streams, when compared with the national average, suggest that the employment oriented migrant population in general has lower proportions of illiterates than the rural and urban averages (table 20). There are, however, some differences if male and female data are analysed separately. In the rural-urban stream, the proportion of male illiterates was

Table 20. Migrants reporting employment as reason for migration, by sex and educational level, 1981 (Duration of residence below 5 years)

Educational level	*Rural-urban*		*Urban-urban*	
	Male	*Female*	*Male*	*Female*
Illiterate	563 683 (25.14)	160 013 (54.74)	207 876 (13.38)	75 653 (31.45)
Literate but below matric.*	808 375 (36.05)	72 970 (24.96)	413 442 (26.60)	65 405 (27.19)
Matric but below graduate.**	594 563 (26.52)	39 984 (13.68)	484 207 (31.15)	56 718 (23.58)
Technical diploma/ certificate not equal to degree	40 754 (1.82)	5 029 (1.72)	57 309 (3.69)	4 806 (2.00)
Graduate & above other than technical degree	185 094 (8.21)	9 712 (3.32)	297 153 (19.12)	26 500 (11.03)
Technical degree/diploma equal to degree or post-graduate degree	49 619 (2.21)	4 599 (1.57)	94 176 (6.06)	11 411 (4.74)
Total	2 242 087 (100.00)	292 306 (100.00)	1 554 163 (100.00)	240 530 (100.00)

(Continued)

Table 20 *(continued)*

Source: Census of India, 1981, Series I, Part V A & B(Vi), *Migration Tables*.

Notes:

1. Excludes data for Assam.
2. Percentages are given in parentheses.

- * Includes figures for educational level not classifiable.
- ** Includes figures for non-technical diploma/certificates not equal to degree.

25.14 per cent as against the rural male population average of 59.22 per cent and urban male population average of 34.17 per cent. In the same stream the share of female illiterates was 54.74 per cent as against the rural female population average of 82.05 per cent and urban female population average of 52.18 per cent. In the urban-urban stream of migration, the proportion of illiterates was well below the average illiteracy rate for the urban population. Only 13.38 per cent of males and 31.45 per cent of females were identified as illiterate in the urban-urban stream of migration in India in 1981. The proportion of illiterates in the total urban population was 34.17 per cent amongst males and 52.18 per cent amongst females.

In the rural-urban stream of migrants, 36.05 per cent of the males were educated but had below high school level education, 26.52 per cent were educated up to graduate level, 1.82 per cent had some kind of technical education, 8.21 per cent had graduate degrees and 2.21 per cent had a technical degree/diploma equal to a degree or post-graduate degree. Relatively smaller proportions of females were found in each category of educational levels in the rural-urban stream of migration. In the urban-urban stream of migration, both males and females were comparatively more educated, with larger proportions of both male and female migrants falling in the higher educational and technical diploma/degree categories.

When the educational levels of migrants in the two streams of migration are compared with the all India averages for rural and urban population, it is interesting to find that higher proportions of male and female migrants in the rural-urban stream have educational qualification of above matriculation level (table 21). The

Table 21. India, educational level of population, by residence, 1981

(numbers in millions)

Educational level	*Rural*		*Urban*	
	Male	*Female*	*Male*	*Female*
Illiterate	153.99 (59.21)	203.10 (82.05)	28.66 (34.17)	38.51 (52.18)
Literate but below matric*	89.67 (34.49)	40.90 (16.52)	35.60 (42.44)	26.28 (35.60)
Matric but below graduate**	13.77 (5.29)	3.11 (1.25)	14.15 (16.87)	6.86 (9.30)
Technical diploma/certificate not equal to degree	0.47 (0.18)	0.12 (0.04)	0.58 (0.69)	0.15 (0.20)
Graduate & above other than technical degree	2.15 (0.82)	0.31 (0.13)	4.11 (4.90)	1.71 (2.32)
Technical degree/diploma equal to degree or post-graduate degree			0.78 (0.93)	0.30 (0.40)
Total	260.05 (100.00)	247.55 (100.00)	83.88 (100.00)	73.80 (100.00)

Source: Census of India, 1981.

Notes:

1. Excludes data for Assam.
2. Percentages are given in parentheses.

- * Includes figures for educational level not classifiable.
- ** Includes figures for non-technical diploma/certificates not equal to degree.

proportion of highly qualified males and females in the urban-urban stream of migration is significantly higher than that recorded in the case of total urban population of the country. However, if the educational characteristics of all migrants in both streams were available for comparison with the total urban and rural population, it may have revealed a different pattern. But it is not unjustified to infer from the available data that employment oriented male and female migrants are more educated and technically qualified than the average rural and urban population.

4. Reasons for migration

It should be noted at the outset that, although in reality a number of factors determine the movement of people from one place to another, such multiple reasons for migration would be too complex to be incorporated in national level censuses and sample surveys. The 1981 Census of India provided data on the main reason for migration classified into five broad categories, namely, employment, education, family moved, marriage and other reasons.

It is often stated that male migration is usually a voluntary move for economic reasons while female migration is often in association with marriage or migration of the family. The data on reasons for migration by the four streams of migration in India presents interesting patterns which corroborate the above statement only partially (table 22). In the rural-urban stream of migration, the largest proportion of males (42.31 per cent) migrated for the reason of employment, which includes those seeking first employment or better employment. Another 24.73 per cent of males migrated along with their families, 16.17 per cent migrated for education, 0.79 per cent for marriage and 16.0 per cent migrated because of a number of other reasons. The largest proportion of females (39.87 per cent) migrated along with their families and 34.62 per cent migrated because of marriage. These two categories together account for about three fourths of the total female migration in the rural-urban stream. Relatively much smaller proportions of females migrated for employment (6.34 per cent), education (5.59 per cent) and other reasons (13.58 per cent).

Table 22. India, reason for migration by stream and sex, 1981 (Duration of residence below 5 years)

Migration streams	*Reasons for Migration*														
	Employment			*Education*			*Family moved*			*Marriage*			*Others*		
	Male	*Female*	*Total*	*Male*	*Female*	*Total*	*Male*	*Female*	*Total*	*Male*	*Female*	*Total*	*Male*	*Female*	*Total*
Rural-rural	2 420 430 (26.21)	612 129 (3.30)	3 032 559 (10.92)	833 472 (9.02)	269 164 (1.45)	1 102 636 (3.97)	2 933 353 (31.76)	3 489 138 (18.82)	6 422 492 (23.12)	245 676 (2.66)	11 007 171 (59.36)	11 252 847 (40.51)	2 802 895 (30.35)	3 164 927 (17.07)	5 967 822 (21.48)
Rural-urban	2 242 088 (42.31)	292 307 (6.34)	2 534 395 (25.57)	856 843 (16.17)	258 072 (5.59)	1 114 915 (11.25)	310 803 (24.73)	1 838 962 (39.87)	3 149 765 (31.78)	41 932 (0.79)	1 597 095 (34.62)	1 639 027 (16.53)	847 943 (16.00)	626 422 (13.58)	1 474 365 (14.87)
Urban-urban	1 554 162 (39.64)	240 530 (6.01)	1 794 692 (22.65)	319 663 (8.15)	147 286 (3.68)	466 949 (5.89)	1 339 654 (34.17)	1 858 934 (46.42)	3 198 588 (40.36)	27 105 (0.69)	1 208 519 (30.18)	1 235 624 (15.59)	680 295 (17.35)	549 320 (13.71)	1 229 615 (15.51)
Urban-rural	348 220 (31.15)	137 143 (5.95)	785 363 (17.90)	106 680 (5.13)	53 368 (2.31)	160 048 (3.65)	651 408 (31.30)	829 471 (35.96)	1 480 879 (33.75)	24 705 (1.19)	790 184 (34.25)	814 889 (18.75)	649 990 (31.23)	496 609 (21.53)	1 146 599 (26.13)
Total	6 864 900 (33.43)	1 282 109 (4.35)	8 147 009 (16.29)	2 116 658 (10.31)	727 890 (2.47)	2 844 548 (5.69)	6 235 218 (30.36)	8 016 505 (27.20)	14 251 723 (28.50)	339 418 (1.65)	14 602 969 (49.56)	14 942 387 (29.88)	4 981 123 (24.25)	4 837 278 (16.42)	9 818 401 (19.64)

Source: Census of India, 1981, *Migration Tables*.

Notes:

1. Excludes data for Assam.
2. Others includes movement due to retirement, for economic reasons such as setting up of jobs, starting of new business, etc.
3. Percentages are given in parentheses.

In the urban-urban stream of migration, marginally smaller proportions of males as well as females migrated for reasons of employment while relatively larger proportions of males and females migrated along with their families than in the rural-urban stream.

However, employment as a determining factor is less significant for males in the rural-rural stream of migration. Only about a quarter of the males migrated for employment, while 31.76 per cent migrated along with their families and 30.35 per cent migrated due to other reasons in the rural-rural stream. In the urban-rural stream, employment, family moved and other reasons appear to be equally important reasons for male migration. But, in the case of female migrants, family's migration and marriage are the major reasons for the migration of a large majority in the urban-rural and rural-rural streams.

The data for the year 1981 suggest that employment is an important determining factor for male migration in the rural-urban and urban-urban streams of migration. Marriage and family's movement together are the key factors behind migration of females in all four streams of migration.

5. Trends in female migration

An attempt has been made in this study to analyse the migration data for male and female migrants separately. However, the migration tables of the 1981 census are not suitable for analysing age, education, and marital status of female migrants as these data are not available for all migrants. For this reason, it is not possible to use even the very basic analytical tool of comparing the characteristics of rural-urban migrants with those of the total population of urban and rural areas, in order to be able to discern who is migrating to urban areas. There are no data available from secondary sources on the impact of rural-urban migration on women in terms of age at marriage, fertility, practice of family planning and status of women in the family and society.

The relationship between rural-urban migration and employment will be dealt with in a subsequent section. This section will use the available data and analyse the trends in female migration in a little more detail. It specifically focuses on three aspects of female migration, that is change in the magnitude and proportion of female migrants, the extent of single migrants in rural-urban and urban-urban streams of migration and spatial concentration of female migrants in cities of various sizes.

(a) Magnitude of female migration

At the all-India level, there were 43.78 million migrants between 1966 and 1971. Women appeared to be more mobile than men with a share of about 57 per cent of total migrants (table 23). However, the proportion of female migrants was lower than male migrants in the rural-urban and urban-urban streams during the period, that is 46.7 per cent females as against 53.3 per cent males in the urban-urban stream, and 43.8 per cent females as against 56.2 per cent males, among rural-urban migrants.

Between 1976 anad 1981, the number of total migrants increased to 50.01 million in India but the proportion of male and female migrants overall did not change drastically (table 23). However, the volume as well as percentage share of females increased in both rural-urban and urban-urban streams. In the urban-urban stream about half or 4.01 million of the migrants were females. In the rural-urban stream 4.61 million or 46.52 per cent of the migrants were females. The increased mobility of women to India's urban areas could be a result of enhanced female migration, both associational as well as autonomous migration.

(b) Extent of single female migration

The above stated results clearly indicate that increasing numbers of females are migrating from rural to urban areas and from one urban area to another. But the available data do not reveal whether these women are migrating alone or with family. Single female migration is an important indicator of changes taking place in the society as well as in the labour market. Therefore, an attempt is made to assess the extent of single female migration in India on the basis of 1981 census data.

The explicitly stated reasons for migration data can be used for estimating the extent of single female migration in any stream (table 22). It is assumed that most of the women who migrated for reasons of employment and education were single at the time of migration. Some of the women who migrated to urban areas for acquiring higher education and professional skills may have also stayed on to work after completing their studies (Pathak, 1995). According to this method, 550,379 or about 12 per cent of the female migrants in the rural-urban stream are

Table 23. Internal migration of males and females, by stream, 1971 and 1981 (Duration of residence below 5 years)

(Numbers in millions)

Streams of migration	*1971*			*1981*		
	Male	*Female*	*Total*	*Male*	*Female*	*Total*
Rural-rural	9.47 (35.3)	17.32 (64.7)	26.79 (100.00)	9.24 (33.26)	18.54 (66.74)	27.78 (100.00)
Rural-urban	4.00 (56.2)	3.11 (43.8)	7.11 (100.00)	5.30 (53.48)	4.61 (46.52)	9.91 (100.00)
Urban-urban	3.24 (53.3)	2.83 (46.7)	6.07 (100.00)	3.92 (49.43)	4.01 (50.57)	7.93 (100.00)
Urban-rural	1.91 (50.25)	1.90 (49.75)	3.79 (100.00)	2.08 (47.38)	2.31 (52.62)	4.39 (100.00)
Total	18.61 (42.52)	25.16 (57.48)	43.78 (100.00)	20.54 (41.08)	29.47 (58.92)	50.01 (100.00)

Sources:

1. Census of India, 1981, Series I, Part V A & B (I), *Migration Tables*.
2. Census of India, 1971, Series I, Part-II-D(i), *Migration Tables*.

Notes:

1. Percentages have been given in parentheses.
2. The percentages have been calculated from the actual figures.
3. Place of last residence unclassible as rural or urban is included in the total.
4. Excludes data for Assam in 1981.

estimated to be single female migrants. Similarly, 387,816 or about 10 per cent of the female migrants in the urban-urban stream of migration are estimated to be single migrants.

(c) Distribution of female migrants by city size

In this section, the sex ratio is defined as the number of females per thousand males in the population. The sex ratio for a nation is determined by differentials in the number of male and female births, death rates and infant mortality rates. Regional variations in the sex ratio are also determined by male and female migration patterns to a great extent. Therefore, change in the sex ratio in urban and rural areas can be taken as an outcome of net migration of males and females between rural and urban areas.

Analysis of the long-term trends in the sex ratio at the all-India level reveals that it has been declining since 1951 (table 24). In 1951 the sex ratio for the total population in India was 946 females per thousand males. It had declined to 927 females per thousand males in 1991. The rural sex ratio was higher than the urban sex ratio in each census year. This trend suggests that rural-urban migration has been male dominated, and has caused an imbalance in sex ratios in urban areas. However, the rural sex ratio has declined between 1951 and 1991 whereas the urban sex ratio has improved during the same period. This is a clear indication of increasing proportions of females in the rural-urban migration stream. The data on male and female migration for the 1971 and 1981 census years, discussed earlier in this section, had revealed similar patterns.

Table 24. Sex ratio* in India, 1951-1991

Year	Rural	Urban	Total
1951	965	860	946
1961	963	865	941
1971	949	858	930
1981	951	880	934
1991	938	894	927

Source: Census of India, 1981 and 1991.

* Number of females per 1,000 males.

Having established that more females are migrating to India's urban areas, it will be interesting to see the concentration of female migrants by city size. A look at the sex ratio by size classes of towns for the 1961-1991 period shows that relatively fewer females than males migrate to the class I cities having a population of 100,000 and above, and to the smallest towns of class VI category having a population of 5,000 and less (table 25). The larger cities tend to be especially unfavourable to female migrants owing to the shortage of residential accommodation and high cost of living, which act as deterrents to family migration. The migration to very small towns is also predominantly male. Most men migrate to small towns located a short distance from their villages because of the possibility of frequently visiting their family in the village. The prevailing social ethos concerning married women staying with parents-in-law in the villages has also resulted in male selective migration to urban areas in general (Pathak and Patnaik, 1993). But the time series data also show that increasingly more females have been migrating to class I, II and III towns whereas female migration to smaller towns, of IV, V and VI categories appeared to have declined marginally during the 1961-1991 period. This is an indication of changing trends in female migration both in terms of volume and preference for relatively larger towns and urban agglomerations offering a wider range of employment opportunities and other amenities.

Table 25. Sex ratio* by size-class of towns in India, 1961-1991

Size class	*1961*	*1971*	*1981*	*1991*
I	798	828	860	882
II	886	895	903	914
III	894	902	920	921
IV	917	916	917	913
V	907	902	892	901
VI	869	850	857	863

Source: Derived from the Census of India, 1961, 1971, 1981, and 1991.

* Number of females per 1,000 males.

City-level data on sex ratio in the 23 metropolises of 1991 further support the above-stated trends and patterns in female migration (table 26). The largest cities, namely Bombay, Calcutta and Delhi, still do not attract many female migrants. The sex ratio of these cities is amongst the lowest, although it has improved since 1981. Only 2 of

Table 26. Population, 1991; growth rate, 1981-1991; and sex ratio, 1981 and 1991 in metropolitan cities

City	*Population 1991*	*Growth rate 1981-1991*	*Sex ratio 1981*	*Sex ratio 1991*
Bombay	12 596 243	52.80	772	828
Calcutta	11 021 918	19.88	781	827
Delhi	8 419 084	46.95	808	830
Madras	5 421 985	26.41	930	933
Hyderabad	4 344 437	70.65	919	930
Bangalore	4 130 288	41.36	896	902
Ahmedabad	3 312 216	30.00	869	889
Pune	2 493 987	47.91	880	903
Kanpur	2 029 889	23.84	804	822
Nagpur	1 664 006	27.80	910	915
Lucknow	1 669 204	65.66	832	871
Surat	1 518 950	66.22	840	839
Jaipur	1 518 235	49.56	861	868
Kochi	1 140 605	66.31	983	997
Coimbatore	1 100 746	19.60	924	930
Vadodara	1 126 824	51.28	839	898
Indore	1 109 056	33.73	885	900
Patna	1 099 647	19.67	815	829
Madurai	1 085 914	19.63	952	954
Bhopal	1 062 771	58.38	870	894
Visakhapatnam	1 057 118	75.13	933	937
Varanasi	1 030 863	29.32	842	861
Ludhiana	1 042 740	71.77	815	795

Source: Census of India, 1981 and 1991.

the 23 metropolises have registered a decrease in their sex ratio between 1981 and 1991, Ludhiana and Surat. All other cities reveal an improvement in the sex ratio, which can be viewed as an indicator of enhanced migration of females to these cities. There seems to be no clear-cut relationship between population growth rate and degree of change in the sex ratio of these cities between 1981 and 1991.

6. International migration

The data base for the analysis of international migration, both for immigration and emigration, is limited. The Census provides some information on immigrants, both by place of birth and by place of last residence. These data are highly underestimated as they do not include illegal migration from neighbouring countries. It is also not possible to obtain the volume of Indians migrating to other countries. Some rough estimates are made available by a few scholars on patterns of migration and the implications for the sending families and regions for specific streams of international migration. But these estimates are not adequate for illustrating the broad patterns of international migration from India.

According to the 1981 Census, a total of 617,834 persons migrated into India during the reference period of the past five years (table 27). The rural-urban origins of these migrants are not known. About 52 per cent of the migrants were residing in rural areas of India and about 48 per cent were residing in urban areas at the time of enumeration. The proportion of males amongst international in-migrants to urban areas was about 56 per cent, as against 44 per cent female migrants. International migration accounts for a very small proportion of total migration to India's urban areas. During the period under consideration, fewer than 3 per cent of the total migrants into India's urban areas had come from foreign countries.

Table 27. International migration to India, 1981
(Duration of residence below 5 years)

Place of enumeration	*India*				
	Male	*Female*	*Total*	*Percentage of*	
				Male	*Female*
Rural	169 860 (50.49)	149 340 (53.06)	319 200 (51.66)	53.21	46.79
Urban	166 531 (49.51)	132 103 (46.94)	298 634 (48.34)	55.76	44.24
Total	336 391 (100.00)	281 443 (100.00)	617 834 (100.00)	54.45	45.55

Source: Census of India, 1981, Series-I, Part V and B(i), *Migration Tables*.

Note: Percentages are given in parentheses.

The distribution of all international migrants by country of origin reveals that most of the migrants come from other countries in Asia (table 28). A further breakdown of the origin data reveals that the neighbouring countries of Bangladesh, Nepal, Sri Lanka and Pakistan are the four major sending countries for the international migrants residing in India (table 29). These four countries together are the origin of about 93 per cent of all the international migrants and about 90 per cent of all the international migrants to urban areas in India. The percentage distributions of male and female migrants by country of origin in Asia reveal similar patterns. However, if one looks at the male/female distribution of migrants from each country, one finds that relatively large numbers of males migrated to India. Only in the case of Bangladesh, did more females migrate to India than males. The number of female migrants who came from Bangladesh was 140,014, against 137,054 male migrants, in the five-year period preceding 1981. The relatively higher number of females in the migration stream from Bangladesh can be explained by the sex composition of migrant families as well as by marriage migration of females across the border.

Table 28. Origin of international migrants to India, 1981 (Duration of residence below 5 years)

Place of last residence	*Male*	*Female*	*Total*
Countries in Asia beyond India (including USSR)	320 576 (95.30)	268 995 (95.58)	589 571 (95.43)
Countries in Europe (excluding USSR)	4 966 (1.48)	4 303 (1.53)	9 269 (1.50)
Countries in Africa	6 556 (1.95)	4 718 (1.67)	11 274 (1.82)
Countries in America	3 006 (0.89)	2 651 (0.94)	5 657 (0.92)
Countries in Oceania	369 (0.11)	304 (0.11)	673 (0.11)
Unclassified	918 (0.27)	472 (0.17)	1 390 (0.22)
Total	336 391 (100.00)	281 443 (100.00)	617 834 (100.00)

Source: Census of India, 1981, Series I, Part V A & B (I), *Migration Tables*.

Note: The percentages are given in brackets.

Table 29. Distribution of international migrants to India from Asia, 1976-1981, by country of origin (Duration of residence below 5 years)

Last residence in countries in Asia beyond India	*Place of enumeration*	*Percentage distribution of international migrants to India*		
		Male	*Female*	*Total*
Bangladesh	Total	42.75	52.05	46.99
	Rural	45.60	54.26	49.66
	Urban	39.71	49.42	44.00
Bhutan	Total	0.47	0.37	0.43
	Rural	0.53	0.46	0.49
	Urban	0.48	0.30	0.40
Myanmar	Total	1.17	1.80	1.46
	Rural	0.83	1.15	0.98
	Urban	1.53	2.57	1.99
Nepal	Total	26.99	18.28	23.01
	Rural	30.11	23.83	27.17
	Urban	23.64	11.67	18.35
Pakistan	Total	10.10	9.75	9.94
	Rural	3.87	3.15	3.53
	Urban	16.77	17.59	17.13
Sri Lanka	Total	11.85	13.66	12.67
	Rural	13.62	15.20	14.36
	Urban	9.95	11.83	10.78
Other countries	Total	6.67	4.09	5.50
	Rural	5.44	1.95	3.81
	Urban	7.92	6.62	7.35
Total	Total, rural, urban	100.00	100.00	100.00

Source: Census of India, 1981, Series I, Part A & B (I), *Migration Tables*.

D. URBANIZATION AND MIGRATION PATTERNS IN PUNJAB

The analysis of trends and patterns of migration during 1981-1991 for Punjab State is presented in this section. It is important to note here that Punjab was selected for state level analysis because it was the only state for which 1991 migration tables from the Census were available at the time of writing. The trends and patterns observed in Punjab cannot be used for generalization to the entire country, but can be viewed as an illustration of changing trends between 1981 and 1991.

1. Urbanization patterns in Punjab

Punjab is one of the states which have been positively influenced by the "Green revolution", resulting in modernization and commercialization of the agricultural sector. The state has attracted considerable investments in the provision of rural infrastructure as well as in creation of non-farm employment in rural areas.

In terms of population size, Punjab is a relatively small state of India. The total population was 20.28 million in 1991 (table 30). The urban population was 6 million, which accounted for 29.55 per cent of the state's total population. This makes Punjab the sixth most urbanized state in India, excluding the Union Territories.

The rural population growth rate in Punjab was unchanged at about 17 per cent for the decades 1971-1981 and 1981-1991. The state experienced high urban population growth of 44.51 per cent during 1971-1981, which was quite close to the national average. Urban population growth declined substantially to 28.95 per cent during 1981-1991. Although this was in keeping with the general slowing down of the pace of urban growth in the country, it was well below the national average of 36.47 per cent. One of the main reasons for the lower urban growth rate recorded in Punjab during 1981-1991 is the widespread political and social disturbances of the 1980s, which may have restricted in-migration from other states and may have encouraged out-migration of people to other parts of the country as well as to foreign countries.

Table 30. Total population, urban population and growth rates, Punjab, 1981 and 1991

	1981	*1991*
Total population (millions)	16.79	20.28
Urban population (millions)	4.65	6.00
Percentage of urban to total population	27.68	29.55
Decadal urban population growth rate (per cent)	44.51	28.95
Decadal rural population growth rate (per cent)	17.47	17.68

Source: Census of India, 1981 and 1991.

The negative contribution of net reclassification of towns appears to be another determinant of the lower urban growth rate recorded in Punjab in 1981-1991. The number of new towns identified in 1991 was 7, as against 21 towns of 1981 which were declassified in 1991. As a result, the total number of towns and urban agglomerations declined from 134 in 1981 to 120 in 1991 (table 31).

Relative to the national distribution of urban population shown in table 7, the distribution of urban population by broad size-classes in Punjab in 1981 and 1991 shows a lower concentration of urban population in the cities of Class I category and greater concentration of population in the smaller towns of Class II and IV categories (table 31). The percentage share of urban population of Class I cities in Punjab was 54.2 per cent, as against the national average of 64.9 per cent

Table 31. Number and percentage of population of towns and urban agglomerations by broad size-class categories, Punjab, 1981 and 1991

Size-class/ population	*1981*		*1991*	
	No. of towns/ UAs	*% of population*	*No. of towns/ UAs*	*% of population*
I 100,000+	7	46.4	10	54.2
II 50,000-99,999	10	14.4	18	19.9
III 20,000-49,999	27	20.2	25	12.9
IV 10,000-19,999	36	11.3	46	10.8
V 5,000-9,999	40	6.5	14	1.7
VI less than 5,000	14	1.2	7	0.5
Total	134	100.0	120	100.0

Source: Census of India, 1981 and 1991.

in 1991. The relatively more balanced spatial distribution of urban population appears to be an outcome of urbanization led by agricultural growth in the state.

Against this general backdrop of a slower pace of urbanization and more balanced urban spread, the state has witnessed the emergence of a fast growing metropolis, namely, Ludhiana. This city has grown rapidly during the last two decades. The population of Ludhiana was 1,042,740 in 1991. It had grown by 51.32 per cent during 1971-1981 and 71.77 per cent during 1981-1991. Rapid industrial development is the main cause of the rapid population growth of the city. It has become a leading manufacturing centre for hosiery, engineering goods, agricultural implements, woolen garments and bicycles.

2. Trends and patterns of migration

The data on internal migration at the state level reveal patterns of in-migration to the state. The extent of out-migration is not possible to ascertain without the migration data for all states, which are not available as yet. Therefore, all the analysis in this section focuses on trends and patterns of in-migration to Punjab between 1981 and 1991. The trends and patterns examined in this section include streams and volume of migration, international migration, spatial patterns of migration, characteristics of migrants and reasons for migration.

(a) Streams and volume of internal in-migration

In absolute terms, Punjab state recorded almost the same number of 5-year in-migrants in 1981 and 1991. The total number of in-migrants in 1981 was 1.27 million, and it was 1.34 million in 1991 (tables 32 and 33). As observed at the national level, in Punjab the rural-rural stream accounted for the largest share of the total internal migration in both years. The other streams of migration followed in the same order of

Table 32. Streams and volume of internal migration, Punjab, 1981 (Duration of residence below 5 years)

Streams	*Male*		*Female*		*Total*	
	Number	*%*	*Number*	*%*	*Number*	*%*
Rural-rural	206 565	40.45	432 753	57.26	639 318	50.48
Rural-urban	130 661	25.59	114 478	15.15	245 139	19.36
Urban-urban	125 775	24.63	144 512	19.12	270 287	21.34
Urban-rural	47 655	9.33	63 992	8.47	111 647	8.82
Total	510 656	100.00	755 735	100.00	1 266 391	100.00

Source: Census of India, 1981, *Migration Tables.*

Table 33. Streams and volume of internal migration, Punjab, 1991 (Duration of residence below 5 years)

Streams	*Male*		*Female*		*Total*	
	Number	*%*	*Number*	*%*	*Number*	*%*
Rural-rural	176 400	38.10	526 060	59.70	702 460	52.26
Rural-urban	135 810	29.33	136 790	15.52	272 600	20.28
Urban-urban	109 550	23.66	149 270	16.94	258 820	19.25
Urban-rural	41 260	8.91	69 080	7.84	110 340	8.21
Total	463 020	100.00	881 200	100.00	1 344 220	100.00

Source: Census of India, 1991, *Migration Tables.*

importance. In 1991, 52.26 per cent of the internal migrants were in the rural-rural stream, 20.28 per cent in the rural-urban stream, 19.25 per cent in the urban-urban stream and 8.21 per cent in the urban-rural stream. There were only minor variations in the distribution of migrants by stream between 1981 and 1991.

Similarly, the male and female migration patterns by the four streams followed the broad national patterns. In Punjab, in both census years a relatively larger proportion of females was found in the rural-rural stream, whereas more males were observed in the rural-urban and in urban-urban streams of migration than for the state average. The proportion of females in each stream increased between 1981 and 1991. The proportion of migrants who were females increased from 59.7 per cent in 1981 to 65.6 per cent in 1991. The female share of a migration stream increased the most for rural-rural migrants.

(b) International migration

The total number of international migrants to Punjab increased from 12,599 in 1981 to 20,590 in 1991 (table 34). The classification of these migrants by rural-urban place of enumeration in the state reveals almost the same pattern in both census years, with urban areas of the state claiming a larger share. About 62 per cent of the international migrants were recorded as urban residents in both years. The proportion of females amongst the international migrants to urban areas of the state increased from about 31 per cent in 1981 to 37 per cent in 1991.

If the international migrants are classified by place of origin, it becomes clear that most of these migrants came from two neighbouring countries. Pakistan alone accounted for 57 per cent while Nepal accounted for 23 per cent of the international migrants during the five-year period preceding the 1991 census.

Table 34. International immigration, Punjab, 1981 and 1991
(Duration of residence below 5 years)

Place of enumeration in the state	*1991*				*1981*			
	Male	*Female*	*Total*	*%*	*Male*	*Female*	*Total*	*%*
Rural	4 720	3 210	7 930	38.51	2 918	1 775	4 693	37.25
Urban	7 980	4 680	12 660	61.49	5 420	2 486	7 906	62.75
Total	12 700	7 890	20 590	100.00	8 338	4 261	12 599	100.00

Sources: (i) Census of India, 1991, *Migration Tables.*
(ii) Census of India, 1981, Part VA&B(i) series-I, *Migration Tables*, Tables D1-D2.

(c) Spatial patterns of internal migration

The distribution of internal migrants by intradistrict, interdistrict and interstate moves shows that short-distance intradistrict migration was predominant in the rural-rural stream of migration in 1981 and 1991 (tables 35 and 36). Interdistrict mobility within the state of enumeration is significant in the rural-urban stream; it accounted for 28.68 per cent and 29.93 per cent of the rural-urban migration respectively in 1981 and 1991. Interstate mobility in the rural-urban stream declined from 32.64 per cent in 1981 to 29.90 per cent in 1991. However, interstate migration is relatively more important in the urban-urban stream of migration. About 39 per cent of urban-urban migrants came to Punjab from other states of India in 1981 and in 1991.

The distribution by origin of interstate migrants in the two census years shows that in 1981, 45 per cent of the rural-urban migrants came to Punjab from one north Indian state alone, namely Uttar Pradesh (tables 37 and 38). Other states which sent out significant proportions of rural-urban migrants to Punjab were also north-Indian states, namely Bihar, Haryana and Himachal Pradesh. In 1991, the proportion of rural-urban migrants who came from Uttar Pradesh declined by about 6 per cent. The proportion of migrants from Bihar, Maharashtra, West Bengal and Delhi increased during this period. Interstate urban-urban migration into Punjab also shows a

Table 35. Distribution of internal in-migrants by place of last residence and stream of migration, Punjab, 1981 (Duration of residence below 5 years)

Place of last residence	*Stream*	*Number of migrants*			*% of migrants*		
		Male	*Female*	*Total*	*Male*	*Female*	*Total*
Intradistrict (elsewhere in district of enumeration)	Rural-Rural	100 291	265 379	365 670	48.55	61.32	57.20
	Rural-Urban	43 481	51 328	94 809	33.28	44.84	38.68
	Urban-Urban	25 719	33 859	59 578	20.45	23.43	22.04
	Urban-Rural	15 030	25 765	40 795	31.54	40.26	36.54
Interdistrict (In other districts of the state of enumeration)	Rural-Rural	46 922	114 393	161 315	22.72	26.43	25.23
	Rural-Urban	32 642	37 664	70 306	24.98	32.90	28.68
	Urban-Urban	44 882	61 486	106 368	35.68	42.55	39.35
	Urban-Rural	12 768	21 171	33 939	26.79	33.08	30.40
Interstate (State in India beyond the state of enumeration)	Rural-Rural	59 350	52 981	112 331	28.73	12.24	17.57
	Rural-Urban	54 538	25 487	80 025	41.74	22.26	32.64
	Urban-Urban	55 174	49 167	104 341	43.87	34.02	38.60
	Urban-Rural	19 857	17 056	36 913	41.67	26.65	33.06
Total	Rural-Rural	206 563	432 753	639 316	100.00	100.00	100.00
	Rural-Urban	130 661	114 479	245 140	100.00	100.00	100.00
	Urban-Urban	125 775	144 512	270 287	100.00	100.00	100.00
	Urban-Rural	47 655	63 992	11 647	100.00	100.00	100.00

Source: Census of India, 1981, Series I, Part V A & B(i), *Migration Tables*, Tables D1-D2.

Table 36. Distribution of internal in-migrants by place of last residence and stream of migration, Punjab, 1991 (Duration of residence below 5 Years)

Place of last residence	*Stream*	*Number of migrants*			*% of migrants*		
		Male	*Female*	*Total*	*Male*	*Female*	*Total*
Intradistrict (Elsewhere in district of enumeration)	Rural-Rural	86 210	323 690	409 900	48.87	61.53	58.35
	Rural-Urban	50 740	58 770	109 510	37.36	42.96	40.17
	Urban-Urban	22 730	35 090	57 820	20.75	23.51	22.34
	Urban-Rural	10 900	27 040	37 940	26.42	39.14	34.38
Interdistrict (In other districts of the state of enumeration)	Rural-Rural	42 890	141 810	184 700	24.31	26.96	26.29
	Rural-Urban	36 380	45 200	81 580	26.79	33.04	29.93
	Urban-Urban	38 400	62 470	100 870	35.05	41.85	38.97
	Urban-Rural	12 960	23 280	36 240	31.41	33.70	32.84
Interstate (State in India beyond the state of enumeration)	Rural-Rural	47 300	60 560	107 860	26.81	11.51	15.35
	Rural-Urban	48 690	32 820	81 510	35.85	23.99	29.90
	Urban-Urban	48 420	51 710	100 130	44.20	34.64	38.69
	Urban-Rural	17 400	18 760	36 160	42.17	27.16	32.77
Total	Rural-Rural	176 400	526 060	702 460	100.00	100.00	100.00
	Rural-Urban	135 810	136 790	272 600	100.00	100.00	100.00
	Urban-Urban	109 550	149 270	258 820	100.00	100.00	100.00
	Urban-Rural	41 260	69 080	110 340	100.00	100.00	100.00

Source: Census of India, 1991, *Migration Tables*.

Table 37. Origin of interstate migrants into urban areas of Punjab, 1981 (Duration of residence below 5 years)

State in India	*Stream*	*Number*			*Percentage*		
		Male	*Female*	*Total*	*Male*	*Female*	*Total*
Bihar	Rural-Urban	7 845	1 557	9 402	14.38	6.11	11.75
	Urban-Urban	3 243	978	4 221	5.88	1.99	4.05
Haryana	Rural-Urban	5 421	6 301	11 722	9.94	24.73	14.65
	Urban-Urban	7 966	11 729	19 695	14.45	23.86	18.89
Himachal Pradesh	Rural-Urban	6 336	3 811	10 147	11.62	14.95	12.68
	Urban-Urban	4 479	3 429	7 908	8.13	6.97	7.58
Madhya Pradesh	Rural-Urban	579	440	1 019	1.06	1.73	1.27
	Urban-Urban	700	710	1 410	1.27	1.44	1.35
Maharashtra	Rural-Urban	232	96	328	0.43	0.38	0.41
	Urban-Urban	1 217	1 042	2 259	2.21	2.12	2.17
Rajasthan	Rural-Urban	3 650	2 649	6 299	6.69	10.39	7.87
	Urban-Urban	2 845	3 514	6 359	5.16	7.15	6.10
Uttar Pradesh	Rural-Urban	27 448	8 455	35 903	50.33	33.18	44.87
	Urban-Urban	18 463	9 803	28 266	33.50	19.94	27.10
West Bengal	Rural-Urban	172	107	279	0.32	0.42	0.35
	Urban-Urban	919	1 038	1 957	1.67	2.11	1.88
Chandigarh	Rural-Urban	615	512	1 127	1.13	2.01	1.41
	Urban-Urban	6 867	6 715	13 582	12.46	13.66	13.02
Delhi	Rural-Urban	268	377	645	0.49	1.48	0.81
	Urban-Urban	4 231	6 707	10 938	7.68	13.64	10.49
Other states and	Rural-Urban	1 094	600	1 694	2.01	2.35	2.12
Union Territories	Urban-Urban	2 575	1 607	4 182	4.67	3.27	4.01
Jammu & Kashmir	Rural-Urban	879	579	1 458	1.61	2.27	1.82
	Urban-Urban	1 616	1 895	3 511	2.93	3.85	3.37
Total	Rural-Urban	54 539	25 484	80 023	100.00	100.00	100.00
	Urban-Urban	55 121	49 167	104 288	100.00	100.00	100.00

Source: Census of India, 1981, *Migration Tables.*

Note: Jammu and Kashmir is a disputed territory, the final status of which has not yet been determined.

Table 38. Origin of interstate migrants into urban areas of Punjab, 1991 (Duration of residence below 5 years)

State in India	*Stream*	*Number*			*Percentage*		
		Total	*Male*	*Femal*	*Total*	*Male*	*Femal*
Bihar	Rural-Urban	14 470	11 100	3 370	17.75	22.80	10.27
	Urban-Urban	7 480	5 330	2 150	7.47	11.01	4.16
Haryana	Rural-Urban	9 670	3 830	5 840	11.86	7.87	17.79
	Urban-Urban	16 090	5 610	10 480	16.07	11.59	20.27
Himachal Pradesh	Rural-Urban	8 980	4 560	4 420	11.02	9.37	13.47
	Urban-Urban	7 170	3 500	3 670	7.16	7.23	7.10

(Continued)

Table 38 *(continued)*

State in India	*Stream*	*Number*			*Percentage*		
		Total	*Male*	*Female*	*Total*	*Male*	*Female*
Madhya Pradesh	Rural-Urban	1 500	790	710	1.84	1.62	2.16
	Urban-Urban	1 640	720	920	1.64	1.49	1.78
Maharashtra	Rural-Urban	970	300	670	1.19	0.62	2.04
	Urban-Urban	2 490	1 050	1 440	2.49	2.17	2.78
Rajasthan	Rural-Urban	5 050	2 440	2 610	6.20	5.01	7.95
	Urban-Urban	6 350	2 480	3 870	6.34	5.12	7.48
Uttar Pradesh	Rural-Urban	32 310	21 740	10 570	39.64	44.65	32.21
	Urban-Urban	28 290	16 540	11 750	28.25	34.16	22.72
West Bengal	Rural-Urban	910	500	410	1.12	1.03	1.25
	Urban-Urban	2 390	940	1 450	2.39	1.94	2.80
Chandigarh	Rural-Urban	1 440	740	700	1.77	1.52	2.13
	Urban-Urban	9 980	4 640	5 340	9.97	9.58	10.33
Delhi	Rural-Urban	1 010	330	680	1.24	0.68	2.07
	Urban-Urban	8 910	3 450	5 460	8.90	7.13	10.56
Other States and Union Territories	Rural-Urban	3 730	1 700	2 030	4.58	3.49	6.19
	Urban-Urban	6 140	2 810	3 330	6.13	5.80	6.44
Jammu and Kashmir	Rural-Urban	1470	660	810	1.80	1.36	2.47
	Urban-Urban	3 200	1 350	1 850	3.20	2.79	3.58
Total	Rural-Urban	81 510	48 690	32 820	100.00	100.00	100.00
	Urban-Urban	100 130	48 420	51 710	100.00	100.00	100.00

Source: Census of India, 1991, *Migration Tables.*

Note: Jammu and Kashmir is a disputed territory, the final status of which has not yet been determined.

predominance of sending regions located in the northern part of the country. Uttar Pradesh accounted for the largest number of urban-urban interstate migrants to Punjab in 1981 and in 1991. Haryana and Himachal Pradesh States and Chandigarh and Delhi Union Territories were other major sending regions for urban-urban migrants to Punjab in both years. There were minor variations in the number and proportion of migrants who came from these states in the two census years.

(d) Characteristics of migrants

The characteristics of migrants in Punjab analysed in this section include sex, age, literacy rates and educational levels. An attempt has also been made to analyse changes in these characteristics between 1981 and 1991, depending on the availability of comparable data. The analysis of employment related characteristics of migrants in Punjab has been incorporated in the following section.

(i) Sex

Of the 1.27 million migrants recorded in Punjab in 1981, about 60 per cent were females and 40 per cent were males (table 39). The number as well as proportion of female migrants increased in 1991 (table 40). Of the 1.34 million migrants in 1991, about 66 per cent were females. The increase in the number of female migrants was largely due to increased female mobility in the rural-rural stream of migration. The proportion of females in the other three streams also improved. The numbers of males and females in the rural-urban streams were almost equal in 1991. In the urban-urban and urban-rural streams, females outnumbered males in both years. The proportion of females increased from 53.47 per cent in 1981 to 57.67 per cent in 1991 in the urban-urban stream. The proportion of females in the urban-rural stream was 57.32 per cent in 1981 and 62.61 per cent in1991. These trends suggest that females in Punjab are more mobile than males in all the streams. Female mobility increased in Punjab in all four streams between 1981 and 1991.

Table 39. Distribution of migrants by sex and stream, Punjab, 1981 (Duration of residence below 5 years)

Streams	*Male*		*Female*		*Total*	
	Number	*%*	*Number*	*%*	*Number*	*%*
Rural-rural	206 565	32.31	432 753	67.69	639 318	100.00
Rural-urban	130 661	53.30	114 478	46.70	245 139	100.00
Urban-urban	125 775	46.53	144 512	53.47	270 287	100.00
Urban-rural	47 655	47.68	63 992	57.32	111 647	100.00
Total	510 656	40.32	755 735	59.68	1 266 391	100.00

Source: Census of India, 1981, *Migration Tables.*

Table 40. Distribution of migrants by sex and stream, Punjab, 1991 (Duration of residence below 5 years)

Streams	*Male*		*Female*		*Total*	
	Number	*%*	*Number*	*%*	*Number*	*%*
Rural-rural	176 400	25.11	526 060	74.89	702 460	100.00
Rural-urban	135 810	49.82	136 790	50.18	272 600	100.00
Urban-urban	109 550	42.33	149 270	57.67	258 820	100.00
Urban-rural	41 260	37.39	69 080	62.61	110 340	100.00
Total	463 020	34.45	881 200	65.55	1 344 220	100.00

Source: Census of India, 1991, *Migration Tables.*

(ii) Age

In the absence of age statistics for migrants with duration of residence below five years, the age distribution of migrants of less than ten years has been examined. It is also important to note that this kind of age-related information was not provided by the Census in 1981 for all migrants. Therefore, comparison between 1981 and 1991 is not possible.

As expected, the largest proportions of male and female migrants in all four streams fall in the age groups 15-24 and 25-34 years (table 41). In the rural-urban stream, about 60 per cent of male and 68 per cent of female migrants were between 15 and 34 years of age in 1991. In the urban-urban stream, approximately 50 per cent of males and 67 per cent of females were found to be in this broad age group. The predominance of young males and females in various migration streams can be explained by the fact that generally this is the age when males migrate in search of employment while females migrate as a result of getting married.

The same table also shows that children below the age of 15 years constitute a significant proportion of migrants in each stream. About 22 per cent of male and female migrants in the rural-urban stream in Punjab were children below the age of 15 years at the time of the census. In the urban-urban stream, the number and proportion of male children was higher than for female children, that is 26.43 per cent of male children as against 20.93 per cent of female children. The proportion of children, both male and female, was the highest in the urban-rural stream of migration. Besides the size and gender composition of migrant families, employment and education oriented autonomous migration of children and the incidence of child marriages amongst the females are important determinants of the share of children below the age of 15 years in various streams of migration. However, the predominance of children in the urban-rural stream of migration can also be

Table 41. Distribution of interstate migrants by sex, age and stream, Punjab, 1991 (Duration of residence 0-9 years)

Age group	Rural-rural				Rural-urban				Urban-urban				Urban-rural			
	Male		Female		Male		Female		Male		Female		Male		Female	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
0-14	20 550	31.50	18 100	17.22	16 920	21.29	12 310	22.14	22 120	26.43	19 590	20.93	9 700	38.37	7 950	25.04
15-24	16 680	25.57	45 040	42.85	24 420	30.73	19 010	34.18	19 770	23.62	29 780	31.82	5 210	20.61	10 780	33.95
25-34	14 970	22.95	35 430	33.70	23 430	29.49	18 840	33.88	22 050	26.34	33 480	35.77	5 120	20.25	10 020	31.56
35-44	7 560	11.59	3 690	3.51	9 590	12.07	3 190	5.74	11 890	14.21	6 290	6.72	2 740	10.84	1 810	5.70
45-54	2 860	4.38	1 190	1.13	3 050	3.84	1 020	1.83	4 250	5.08	2 070	2.21	1 370	5.42	570	1.80
55-64	1 420	2.18	670	0.64	1 070	1.35	650	1.17	1 850	2.21	1 070	1.14	660	2.61	240	0.76
65-80+	930	1.43	800	0.76	600	0.76	370	0.67	1 140	1.36	790	0.84	290	1.15	240	0.76
Age not stated	260	0.40	200	0.19	380	0.48	220	0.40	630	0.75	520	0.56	190	0.75	140	0.44
All ages	64 230	100.00	105 120	100.00	79 460	100.00	55 610	100.00	83 700	100.00	93 590	100.00	25 280	100.00	31 750	100.00

Source: Census of India, 1991, *Migration Tables.*

Note: This table excludes migrants whose place of last residence is unclassifiable as rural or urban.

explained by the practice of sending children back to live with grandparents in case both parents are working in the urban areas and are unable to care for the children. Some of the male children are also sent back to villages to work on the family farm. Hence, division of labour within households also determines migration of children between rural and urban areas.

The age distribution of migrants reporting employment as the main reason for migration reveals a similar pattern (table 42). About 65 per cent of male and 62 per cent of female migrants in the rural-urban stream were young persons between the ages of 15 and 34 years in 1991. In the urban-urban stream of migration about 51 per cent of the male and female migrants were in the same age groups. Larger proportions of both male and female migrants reporting employment as the reason for migration were recorded in both streams in the older age groups of 35-39 years and more than 40 years than observed amongst all migrants. On the other hand, relatively smaller proportions of male and female migrants reporting

Table 42. Internal migrants reporting employment as reason for migration by age and sex, Punjab, 1991 (Duration of residence below 5 years)

Age group	Rural-urban		Urban-urban	
	Male	Female	Male	Female
0-14	2 180 (3.43)	1 160 (14.68)	1 760 (3.98)	1 160 (16.20)
15-19	6 590 (10.36)	730 (9.24)	3 500 (7.92)	550 (7.68)
20-24	13 880 (21.83)	1 730 (21.90)	7 800 (17.65)	1 360 (18.99)
25-29	11 920 (18.75)	1 470 (18.61)	8 650 (19.57)	1 220 (17.04)
30-34	9 070 (14.26)	1 010 (12.78)	3 605 (8.16)	535 (7.47)
35-39	7 870 (12.38)	710 (8.99)	5 930 (13.42)	670 (9.36)
40+	12 080 (19.00)	1 090 (13.80)	9 390 (21.25)	1 220 (17.04)
Total	63 590 (100.00)	7 900 (100.00)	44 190 (100.00)	7 160 (100.00)

Source: Census of India, 1991, *Migration Tables.*

Note: The percentages are given in parentheses.

employment as reason for migration were below the age of 15 years than in the case of all migrants. Some of the children who migrated for economic reasons may have migrated alone. Some of them may have been run-away children while most of them may have migrated with the consent and encouragement of their family. This further supports the argument that household level division of labour, particularly at the lower-income levels, at times induces migration of child labour, either autonomous or along with other family members.

However, the proportion of children amongst migrants reporting employment as the reason for migration was less in 1991 than recorded in 1981 (table 43). This is an indication of the general improvement in the levels of living and consequent school enrollment of children, both in rural and urban sending regions. The proportion of migrants in the prime working age groups of 15-34 years remained more or less the same in the rural-urban and urban-urban streams between 1981 and 1991. Among both males and females in these two streams the proportion in the age group 40 years and above increased. This is possibly an outcome of greater occupational mobility of persons seeking better employment.

Table 43. Internal migrants reporting employment as reason for migration by age and sex, Punjab, 1981 (Duration of residence below 5 years)

Age group	*Rural-urban*		*Urban-urban*	
	Male	*Female*	*Male*	*Female*
0-14	3 066 (4.32)	1 551 (24.32)	2 544 (4.61)	1 379 (21.14)
15-19	8 916 (12.57)	541 (8.48)	4 191 (7.59)	478 (7.33)
20-24	17 147 (24.18)	1 240 (19.44)	10 110 (18.31)	1 233 (18.91)
25-29	14 808 (20.88)	1 190 (18.66)	11 759 (21.29)	1 310 (20.09)
30-34	10 140 (14.30)	664 (10.41)	9 789 (17.72)	867 (13.29)
35-39	6 502 (9.17)	437 (6.85)	6 280 (11.37)	468 (7.18)
40+	10 107 (14.25)	734 (11.51)	10 457 (18.93)	751 (11.51)
Total	70 923 (100.00)	6 378 (100.00)	55 230 (100.00)	6 522 (100.00)

Source: Census of India, 1981, Series-I, *Migration Tables*.

Note: The percentages are given in parentheses.

(iii) Literacy and Education

The comparison of literacy rates of all migrants in various streams with state-level urban and rural literacy rates presents an interesting pattern. The literacy rates of migrant females recorded in the rural-urban and urban-urban streams are significantly higher than the average rural and urban female literacy rates of Punjab (tables 44 and 45). The literacy rates of male migrants in the rural-urban and urban-urban streams are higher than the state-level rural male literacy rate but a little lower than the state-level average urban male literacy rate. It is also interesting to note that while state-level female literacy rates are lower than male literacy rates, the female literacy rates are higher than the male literacy rates in three of the migration streams, that is rural-rural, urban-urban and urban-rural. It can be inferred, therefore, that literates are more mobile in Punjab, and this is particularly true in the case of the female population.

Table 44. Percentage of literates and illiterates to total population, Punjab, 1991

Age group	*Male*		*Female*	
	Literates	*Illiterates*	*Literates*	*Illiterates*
Rural	50.66	49.34	36.67	63.33
Urban	64.97	35.03	55.62	44.38

Source: Census of India, 1991.

However, the proportion of female illiterates was higher than the proportion of male illiterates amongst the migrants reporting employment as reason for migration in the rural-urban and urban-urban streams (table 46). In the rural-urban stream, 33.61 per cent of males were illiterate, as against 43.80 per cent of females in 1991. In the urban-urban stream, 26.66 per cent of males were illiterate as against 31.70 per cent of females. The low literacy levels amongst employment oriented migrant females in Punjab suggest the nature of work for which much female migration to urban areas is taking place. But illiteracy rates of both

Table 45. Literacy rate of migrants by sex and stream, Punjab, 1991 (Duration of residence below 5 years)

Literacy level	*Rural-rural*		*Rural-urban*		*Urban-urban*		*Urban-rural*	
	Male	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*
Literate	66 890 (37.92)	235 810 (44.83)	83 420 (61.42)	77 730 (56.82)	69 350 (63.30)	99 940 (66.95)	21 380 (51.82)	37 130 (53.75)
Illiterate	109 510 (62.08)	290 250 (55.17)	52 390 (38.58)	59 060 (43.18)	40 200 (36.70)	49 330 (33.05)	19 880 (48.18)	31 950 (46.25)
Total	176 400 (100.00)	526 060 (100.00)	135 810 (100.00)	136 790 (100.00)	109 550 (100.00)	149 270 (100.00)	41 260 (100.00)	69 080 (100.00)

Source: Census of India, 1991, *Migration Tables*.

Note: The percentages are given in parentheses.

males and females amongst migrants who reported employment as reason for migration in both streams were lower than the state-level illiteracy rates for urban and rural areas as well as the average illiteracy rate of all male and female migrants in the four streams. There has been significant decline in the illiteracy rate of male and female migrants in the rural-urban and urban-urban streams between 1981 and 1991 (tables 46 and 47).

The educational level of male and female migrants reporting employment as reason for migration in the rural-urban and urban-urban streams reveals patterns similar to those observed at the national level. The largest proportion of males and females in both streams were illiterates, followed by either literates having education below matriculation level or those educated up to matriculation level (table 46). Urban-urban migrants had higher educational qualifications than rural-urban migrants. The broad distributions of male and female migrants reporting employment as reason for migration by educational category have not altered significantly between 1981 and 1991 (table 47).

(c) Reasons for migration

The 1981 Census classified reasons for migration into five broad categories, namely, employment, education, family moved, marriage and others. Two more reasons for migration were added in the 1991 Census; these were business and natural calamities like drought, foods etc. Business can be grouped with employment while natural calamities can be combined with other reasons in order to make the 1981 and 1991 data comparable.

Table 46. Internal migrants reporting employment as reason for migration by sex and educational level, Punjab, 1991 (Duration of residence below 5 years)

Educational level	*Rural-urban*		*Urban-urban*	
	Male	*Female*	*Male*	*Female*
Illiterate	21 370 (33.61)	3 460 (43.80)	11 780 (26.66)	2 270 (31.70)
Literate but below matric.	15 900 (25.00)	2 200 (27.85)	10 850 (24.55)	1 600 (22.35)
Matric. but below graduate	18 920 (29.75)	1 420 (17.97)	11 940 (27.02)	1 500 (20.95)
Technical diploma or certificate not equal to degree	940 (1.48)	140 (1.77)	1 100 (2.49)	150 (2.09)
Graduate and above other than technical degree	5 390 (8.48)	510 (6.46)	7 040 (15.93)	1 210 (16.90)
Technical degree or diploma equal to degree or post-graduate degree	1 070 (1.68)	170 (2.15)	1 480 (3.35)	430 (6.01)
Total migrants	63 590 (100.00)	7 900 (100.00)	44 190 (100.00)	7 160 (100.00)

Source: Census of India, 1991, *Migration Tables*.

Note: The percentages are given in parentheses.

Table 47. Internal migrants reporting employment as reason for migration, by sex and educational level, Punjab, 1981 (Duration of residence below 5 years)

Educational level	*Rural-urban*		*Urban-urban*	
	Male	*Female*	*Male*	*Female*
Illiterate	31 246 (44.06)	3 586 (56.22)	15 486 (28.07)	2 304 (35.33)
Literate but below matric.	18 427 (25.98)	1 192 (18.69)	12 886 (23.36)	1 905 (29.21)
Matric. but below graduate	15 683 (22.11)	967 (15.16)	15 457 (28.02)	1 323 (20.29)
Technical diploma or certificate not equal to degree	864 (1.22)	196 (3.07)	1 317 (2.38)	294 (4.51)
Graduate and above other than technical degree	3 565 (5.03)	264 (4.14)	7 862 (14.25)	740 (11.35)
Technical degree or diploma equal to degree or post-graduate degree	1 128 (1.59)	174 (2.73)	2 161 (3.92)	356 (5.46)
Total migrants	70 913 (100.00)	6 378 (100.00)	55 169 (100.00)	6 522 (100.00)

Source: Census of India, 1981, Part V-A & B(vi), *Migration Tables*.

Note: The percentages are given in parentheses.

A comparison of data on reasons for migration in Punjab State for 1981 and 1991 shows that the broad pattern of reasons stated by male and female migrants in various streams have remained unchanged during this period (tables 48 and 49). In both census years, a large proportion of males in the rural-urban and urban-urban streams have migrated for employment while most females in all four streams have migrated either along with their families or as a result of marriage.

However, some changes can be noted in the reasons for migration stated by males and females between the two decades if the data are examined more closely. For instance, relatively smaller proportions of males in the rural-urban

Table 48. Reason for migration by stream of migration and sex, Punjab, 1981 (Duration of residence below 5 years)

Last residence elsewhere in India	*Employment*			*Education*			*Family moved*			*Marriage*			*Others*		
	Male	*Female*	*Total*	*Male*	*Female*	*Total*	*Male*	*Female*	*Total*	*Male*	*Female*	*Total*	*Male*	*Female*	*Total*
Rural-rural	71 447 (34.59)	15 480 (3.58)	86 927 (13.60)	6 435 (3.11)	7 837 (1.81)	14 272 (2.23)	61 111 (29.58)	64 991 (15.02)	126 102 (19.72)	3 788 (1.83)	280 784 (64.88)	284 572 (44.51)	63 785 (30.88)	63 659 (14.71)	127 444 (19.93)
Rural-urban	70 913 (54.27)	6 378 (5.57)	77 291 (31.53)	6 344 (4.85)	3 944 (3.44)	10 288 (4.20)	34 233 (26.20)	43 044 (37.60)	77 277 (31.52)	729 (0.56)	47 882 (41.83)	48 611 (19.83)	18 442 (14.11)	13 231 (11.56)	31 673 (12.92)
Urban-urban	55 169 (43.86)	6 522 (4.51)	61 691 (28.00)	7 574 (6.02)	4 552 (3.15)	12 126 (5.50)	39 426 (31.35)	53 295 (36.88)	92 721 (42.09)	765 (0.60)	62 502 (43.25)	63 267 (28.72)	22 840 (18.16)	17 642 (12.21)	40 482 (18.38)
Urban-rural	18 666 (39.17)	3 552 (5.55)	22 218 (19.90)	1 423 (2.99)	1 745 (2.73)	3 168 (2.84)	14 417 (30.25)	16 668 (26.05)	31 085 (27.84)	361 (0.76)	31 974 (49.96)	32 335 (28.96)	12 788 (26.83)	10 054 (15.71)	22 842 (20.46)

Source: Census of India, 1981, Part V A&B(iii), *Migration Tables*.
Note: The percentages are given in parentheses.

Table 49. Reasons for migration by stream of migration and sex, Punjab, 1991
(Duration of residence below 5 years)

Streams of migration	Employment			Business			Education			Family moved			Marriage			Natural calamities like drought, flood etc.			Others		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Rural-rural	54 750	13 580	68 330	1 900	1 320	3 220	5 170	5 090	10 260	65 940	65 770	131 710	3 680	400 820	404 500	1 530	910	2 440	43 430	38 570	82 000
	31.04	2.58	9.73	1.08	0.25	0.46	2.93	0.97	1.46	37.38	12.50	18.75	2.09	76.19	57.58	0.87	0.17	0.35	24.62	7.33	11.67
Rural-urban	63 590	7 900	71 490	3 270	500	3 770	5 060	3 530	8 590	46 320	49 070	95 390	1 750	65 190	66 940	570	300	870	15 250	10 300	25 550
	46.82	5.78	26.23	2.41	0.37	1.38	3.73	2.58	3.15	34.11	35.87	34.99	1.29	47.66	24.56	0.42	0.22	0.32	11.23	7.53	9.37
Urban-urban	44 190	7 160	51 350	2 300	1 010	3 310	3 320	2 730	6 050	43 320	49 330	92 650	1 580	77 270	78 850	350	250	600	14 490	11 520	26 010
	40.34	4.80	19.84	2.10	0.68	1.28	3.03	1.83	2.34	39.54	33.05	35.80	1.44	51.77	30.47	0.32	0.17	0.23	13.23	7.72	10.05
Urban-rural	14 880	3 030	17 910	360	220	580	1 300	940	2 240	15 710	17 540	33 250	510	40 660	41 170	150	100	250	8 350	6 590	14 940
	36.06	4.39	16.23	0.87	0.32	0.53	3.15	1.36	2.03	38.08	25.39	30.13	1.24	58.86	37.31	0.36	0.14	0.23	20.24	9.54	13.54

Source: Census of India, 1991, *Migration Tables*.

Note: The percentages are given in parentheses.

and urban-urban streams in 1991 had migrated for the sake of employment and business. Larger proportions of males in these two streams had migrated along with their family. Interestingly, more females in these two streams in 1991 had migrated for employment and business than recorded in 1981. The proportion of females who migrated because of marriage has also gone up in both streams between 1981 and 1991. Different trends in male and female migration for the economic reasons of employment and business are an indication of changing labour market conditions and also of changing employment orientation of women in general.

E. MIGRATION, EMPLOYMENT AND POVERTY

The neo-classical theories of rural-urban migration have an underlying assumption that economic factors are the main motivations of migration. According to Lewis (1954), people generally move from (a) labour surplus to labour deficit areas, and (b) low wage to high wage areas. Todaro (1976) emphasizes expected gains as the main cause of migration, which are determined by (a) the rural-urban differential in real incomes, and (b) probability of the new migrant obtaining a job in urban areas. According to Thadani and Todaro (1984), the increasing city-ward migration of women, both unattached and associational, is likely to be determined by economic as well as social factors.

Rural-urban migration is an inevitable part of the process of urbanization-industrialization. This entails allocation of surplus labour from the low-productivity, low income rural sector to the high-productivity, high income urban sector. In many developing countries, high rates of urbanization and rural-urban migration are not accompanied by urban employment generation at an equally rapid pace. The slow pace of employment generation and increasing capital intensity of production in urban areas lead to high levels of urban unemployment and underemployment, which are often twice as high as the rural rates (Todaro, 1984). The situation of surplus labour prevailing in urban areas and continuing rural-urban migration in expectation of finding employment or better employment is being experienced by most developing countries (Papola, n.d.). However, Visaria (1990) argues that, although migrants may take some time in finding employment, they in general have lower unemployment rates than non-migrants.

The empirical analysis of rural-urban migration and changes in the labour force is highly constrained by the non-availability of suitably processed data. An attempt has been made in this section to examine the employment-unemployment trends in order to assess the changes taking place in the urban and rural labour markets. An effort has also been made to relate employment-unemployment trends with the trends in urbanization and rural-urban migration. The labour force characteristics of migrants to Punjab State have been analysed. Similar country-wide data for all migrants were not available for 1981 or 1991. This section also includes the analysis of macro-level trends in urban and rural poverty and the incidence of poverty amongst migrants and non-migrants. However, it has not been possible to establish a direct causal relationship between migration and employment owing to secondary data limitations. It has also not been possible to assess the impact of rural-urban migration on changes in the urban and rural labour force structure for the same reason.

1. Employment-unemployment trends

An assessment of the employment situation in urban and rural labour markets requires data on employment as well as unemployment rates. The Census of India provides data only on economic participation rates. This is useful for understanding the rural-urban employment situation in relation to the urbanization and migration patterns for corresponding years. The NSS publishes data on both employment and unemployment rates, for years which are not exactly the same as Census years. These data are valuable for examining changes in the rural and urban labour markets. Both data sets have been analysed here for understanding the macro-level rural and urban employment situation in India.

A few key observations can be drawn from the economic participation rate measured in terms of the percentage of workers to total population of all ages based on the Census data 1971-1991 (table 50). First, the urban and rural male participation rates are much higher than the corresponding female participation rates in all three years. Second, there has been little variation in the urban or rural male participation rates, while female participation rates have been increasing in rural and urban areas. Third, there is not much of a difference between rural and urban male economic participation rates, whereas the rural female participation rate has been about three times as high as the urban female participation rate in 1981 and 1991.

Table 50. Economic participation rate, 1971-1991 (Main plus marginal workers)

Year	*Percentage of workers to total population*			
	Rural		*Urban*	
	Male	*Female*	*Male*	*Female*
1991*	52.58	26.79	48.92	9.19
1981*	53.77	23.06	49.06	8.31
1971	53.46	13.09	48.82	6.61

Source: Census of India, 1971, 1981 and 1991

* Excluding Assam, and Jammu and Kashmir. Jammu and Kashmir is a disputed territory, the final status of which has not yet been determined.

Changes in the male and female work participation rates in urban and rural areas can be explained by different factors pertaining to rural-urban migration and urbanization patterns. It can be stated that the rural and urban male work participation rates have not been greatly altered by the pace of urbanization. The male work participation rate in rural and urban areas was at about the same level at the time of high urban growth recorded in 1981 as at the time of a declining pace of urbanization observed in 1991. On the other hand, the increase in the urban female participation rate can be explained by more work opportunities becoming available in urban areas and also by the need for two incomes for the survival of many families. In rural areas, male out-migration appears to be the main cause of an increase in the female participation rate. This is particularly relevant for the period 1971-1981, which recorded the highest urban population growth rate and a near doubling of the rural female participation rate.

The NSS employment and unemployment results are based on quinquennial surveys carried out in a relatively large number of sample households for the 27th to 43rd rounds, while the 45th and 46th round results are based on annual surveys conducted in a smaller number of sample households. The NSS labour force estimates exclude population below the age of five years. The NSS economic participation rates presented in table 51 pertain to usual status as well as current weekly status. The unemployment rates of usually

Table 51. Percentage of persons employed, India, 1972/73 to 1990/91

Round (year)	*Male*		*Female*	
	Principal+ subsidiary workers	*Current weekly status*	*Principal+ subsidiary workers*	*Current weekly status*
Rural				
46 (1990/91)	55.3	53.5	29.2	23.0
45 (1989/90)	54.8	52.8	31.9	23.0
43 (1987/88)	53.9	50.4	32.3	22.0
38 (1983)	54.7	51.1	34.0	22.7
32 (1977/78)	55.2	51.9	33.1	23.2
27 (1972/73)	54.5	53.0	31.8	27.7
Urban				
46 (1990/91)	51.3	50.6	14.3	12.4
45 (1989/90)	51.2	50.3	14.6	12.1
43 (1987/88)	50.6	49.2	15.2	11.9
38 (1983)	51.2	49.2	15.1	11.8
32 (1977/78)	50.8	49.0	15.6	12.5
27 (1972/73)	50.1	49.1	13.4	12.3

Source: *Sarvekshana*, Journal of NSSO, 43rd round (July 1987, June 1988), Special Number, September, 1990; and vol. 17, No. 3, 1994.

employed principal status workers have been adjusted by excluding the subsidiary status workers, which is an indicator of chronic unemployment. The usual status approach of presenting employment-unemployment results provides a long-term perspective based on the one-year reference period while the weekly status approach reflects seasonal fluctuations in employment and unemployment patterns.

The broad pattern of NSS economic participation rates of usually employed males and females in urban and rural areas is quite similar to the one revealed by the Census data (table 51). It has to be noted that NSS participation rates in all categories are higher than the Census estimates largely because of the age criterion adopted by the NSS. However, a closer look at the data shows some changes in the participation rate over time which are different from the trend that emerges from the Census data. The most interesting of these differences is that, while the usual status participation rate of urban male workers fluctuated between 50 and 51 per cent from 1972/73 to 1990/91, the rural male work participation rate started increasing after 1987/88. The current weekly status participation rate of rural males registered a larger increase after 1987/88. On the other hand, the usual status female participation rate in rural and urban areas recorded a distinct declining trend in the more recent years. During the same period, the current weekly status participation rate of rural females registered a noticeable increase. This suggests that casualization and intermittent employment is becoming less acute in the case of rural male and female workers.

The unemployment rates, defined as percentage of persons unemployed in the labour force, for males and females conform to the commonly accepted pattern. That is, the urban unemployment rates have been two to four times higher than the rural unemployment rates between 1972/73 and 1990/91 (table 52). For instance, the chronic male unemployment rate in 1990/91 in urban areas in India was 4.5 per cent as against 1.1 per cent in rural areas. Similarly, the chronic female unemployment rate in the same year in urban areas was 4.7 per cent as against 0.3 per cent in rural areas. The temporal analysis of the chronic and current weekly status unemployment rates for males and females in rural and urban areas between 1972/73 and 1990/91 reveals a fluctuating trend. The analysis of unemployment trends in more recent years shows that rural unemployment rates for males and females have been declining since 1987/88. Male and female unemployment rates in urban India decreased significantly in 1989/90 and increased again in 1990/91. These trends are indicators of worsening

Table 52. Unemployment rates, India, 1972/73 to 1990/91

Round (year)	Male		Female	
	Usual status adjusted	*Current weekly status*	*Usual status adjusted*	*Current weekly status*
Rural				
46 (1990/91)	1.1	2.2	0.3	2.1
45 (1989/90)	1.3	2.6	0.6	2.1
43 (1987/88)	1.8	4.2	2.4	4.4
38 (1983)	1.4	3.7	0.7	4.3
32 (1977/78)	1.3	3.6	2.0	4.1
27 (1972/73)	1.2	3.0	0.5	5.5
Urban				
46 (1990/91)	4.5	5.1	4.7	5.3
45 (1989/90)	3.9	4.5	2.7	4.0
43 (1987/88)	5.2	6.6	6.2	9.2
38 (1983)	5.1	6.7	4.9	7.5
32 (1977/78)	5.4	7.1	12.4	10.9
27 (1972/73)	4.8	6.0	6.0	9.2

Source: *Sarvekshana*, Journal of NSSO, 43rd round (July 1987, June 1988), Special Number, September, 1990; and vol. 17, No. 3, 1994.

employment conditions in urban areas and improvement in employment opportunities in rural areas. This may be one of the reasons for the slowing down in rural-urban migration and urbanization in the 1981-1991 period. However, it should be recalled that some of the differences in the employment and unemployment trends before and after 1987/88 could be caused by the large differences in the sample size of the quinquennial and annual surveys.

2. Labour force characteristics of the migrants

The limited analysis of the labour force characteristics of migrants included in this section pertains to: (i) the impact of migration on the labour force status of the migrants; and (ii) a comparison of the employment status of migrants with that of the average urban and rural population.

(a) Impact of migration

As stated earlier, migration is motivated by the expectation of finding employment, or better employment. Therefore, one of the most critical impacts of migration is likely to be changes in the labour force status of people after migration. The 1983 NSS survey results provide data on the usual activity status of all migrants in rural and urban areas before and after migration (table 53). The data do not allow examination of migrants by streams. Urban migrants include both rural-urban and urban-urban migrants, and rural migrants include rural-rural and urban-rural migrants. A comparison of the labour force status of male and female migrants before and after migration

Table 53. India, percentage distribution of migrants by usual activity status, 1983 (Duration of residence below 5 years)

Usual activity status	*Before migration*				*After migration*			
	Rural		*Urban*		*Rural*		*Urban*	
	Male	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*
I. Working (employed)	51.03	24.56	43.48	9.60	58.69	32.59	55.46	12.61
(a) Regular employee	18.92	1.12	22.33	2.89	23.15	1.76	35.80	5.43
(b) Casual labour	17.87	13.83	8.59	4.21	15.81	15.52	7.72	3.84
(c) Self-employed	14.24	9.61	12.56	2.50	19.73	15.31	12.04	3.34
II. Seeking or available for work (unemployed)	3.56	0.46	9.70	1.13	2.55	0.62	3.39	1.07
III. Not in labour-force	45.41	74.98	46.82	89.27	38.76	66.79	41.15	86.32
Grand total (I+II+III)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: *Sarvekshana*, Journal of NSSO, vol. XIII, No. 3, January-March 1990, Issue No. 42, Dept. of Statistics, M/o Planning, GOI.

reveals the following broad patterns: (i) the percentage employed in all categories increased upon migration; (ii) the proportion of those seeking employment as well as not in the labour-force declined; and (iii) amongst the employed persons, the proportion of regular wage employees and self-employed persons increased while the proportion of casual wage labour declined. Migration seems to have had a positive impact on the labour force status of all categories of migrants, in the sense that not only did more migrants find employment but some also moved from casual wage labour to the more secure regular wage of self-employed work after migration. This is true of migrants to rural as well as urban areas.

(b) Economic participation rate of migrants

The Census provides data on two facets of labour force characteristics of migrants, that is the number of main workers, marginal workers and non-workers, and the distribution of the main workers into a nine-fold industrial classification. The Census defines main workers as those persons who have worked for 183 days or more in the reference year and marginal workers as those persons who have worked for less than 183 days in the reference year. However, the 1981 migration tables from the census published these characteristics only for those migrants who stated employment as the main reason for migration. This does not include all migrant workers. Some of the migrants who did not explicitly state employment as their motivation for migration may have started working in response to economic needs or the availability of employment upon migration. On the other hand, it was found that a significant proportion of persons who migrated for the reason of employment were non-workers at the time of enumeration. This may be due to change in the migrants' willingness to work or unavailability of suitable economic opportunities. Because of these limitations, the data on 1981 labour force characteristics of migrants have not been incorporated in this section. The 1991 Census presented data on these labour force characteristics for all migrants. But only the data on number of workers, marginal workers and non-workers are published for migrants by duration of residence. The nine-fold classification of main workers has been aggregated for all durations of migration. These two data sets have been included for analysis in this section.

A comparision of the 1991 participation rates for India and Punjab reveals that while male rural and urban participation rates in Punjab are a few percentage points higher than the corresponding national estimates, the female participation rates in Punjab are significantly lower than the national average. This gap is particularly wide in the case of the rural female participation rate. The rural female participation rate of main plus marginal workers in Punjab was only 4.37 per cent, as against the national average of 26.79 per cent (tables 50 and 54). This is not a special

Table 54. Participation rates of urban and rural population, Punjab, 1991

Status	*Rural*		*Urban*	
	Male	*Female*	*Male*	*Female*
I. Main workers + marginal workers	4 166 637 (55.05)	293 746 (4.37)	1 676 709 (52.26)	124 900 (4.49)
a. Main workers	4 157 285 (54.92)	145 465 (2.16)	1 675 567 (52.22)	120 057 (4.31)
b. Marginal workers	9 352 (0.12)	148 281 (2.21)	1 139 (0.04)	4 843 (0.17)
II. Non-workers	3 402 786 (44.95)	6 425 575 (95.63)	1 531 905 (47.74)	2 659 714 (95.51)
Total	7 569 423 (100.00)	6 719 321 (100.00)	3 208 611 (100.00)	2 784 614 (100.00)

Source: Census of India, 1991, *Final Population Totals*, Paper 2 of 1992.

Note: Percentages are given in parentheses.

feature of the 1991 Census. The data on male and female economic participation rates for Punjab in 1971 and 1981 also show a similar pattern. This suggests that prosperity led by agricultural growth in the state has a strong negative impact on economic participation of females, particularly in rural areas.

The participation rates of migrants in the four streams reveal similar patterns. Female participation rates amongst migrants in all four streams were only marginally higher than the state-level rural and urban participation rates in 1991 (table 55). Amongst male migrants, the participation rate of main plus marginal workers was the highest in the rural-urban stream, that is 60.53 per cent, which is higher than the state-level average male participation rate of the rural and urban populations. The participation rate of male migrants in the urban-urban stream was not significantly higher than the state-level urban male participation rate. The participation rate of male migrants in the rural-rural and urban-rural streams was significantly lower than the rural and urban average participation rates for the total male population in the state. The relatively lower male participation rate in the urban-rural stream can possibly be explained by the fact that this stream may comprise a significant number of migrants who are returning to their villages after retirement, or after not being able to secure suitable work in urban areas. But the low male participation rate in the rural-rural stream of migrants is not easy to comprehend.

Table 55. Participation rates of migrants, Punjab, 1991 (Duration of residence below 5 years)

Status	*Rural-rural*		*Rural-urban*		*Urban-urban*		*Urban-rural*	
	Male	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*
I. Main workers + marginal workers	81 240 (46.05)	30 960 (5.89)	82 200 (60.53)	6 180 (4.52)	58 660 (53.55)	7 890 (5.29)	18 540 (44.93)	3 800 (5.50)
a. Main workers	80 970 (45.90)	18 680 (3.55)	82 150 (60.49)	5 950 (4.35)	58 640 (53.53)	7 740 (5.19)	18 510 (44.86)	2 860 (4.14)
b. Marginal workers	270 (0.15)	12 280 (2.33)	50 (0.04)	230 (0.17)	20 (0.02)	150 (0.10)	30 (0.07)	940 (1.36)
II. Non-workers	95 160 (53.95)	495 100 (94.11)	53 610 (39.47)	130 610 (95.48)	50 890 (46.45)	141 380 (94.71)	22 720 (55.07)	65 280 (94.50)
Total	176 400 (100.00)	526 060 (100.00)	135 810 (100.00)	136 790 (100.00)	109 550 (100.00)	149 270 (100.00)	41 260 (100.00)	69 080 (100.00)

SSource: Census of India, 1991.

Note: Percentages are given in parentheses.

(c) Sectoral distribution of migrant workers

The comparison of sectoral distribution of migrant workers in the rural-urban and urban-urban streams with that of all rural and urban workers in the state does not reveal a major concentration of migrant workers in any industrial categories (tables 56-58). For instance, the three predominant industrial categories of employment for male workers, both migrant workers in rural-urban and urban-urban streams and total urban workers in 1991 in Punjab were manufacturing and processing in non-household industry, trade and commerce, and other services. However, trade and commerce accounted for a smaller proportion of male workers in the rural-urban stream. Other services accounted for a higher proportion of migrant workers in urban areas than prevailing amongst the total urban male workers in Punjab. It has to be noted here that the other services category includes a wide range of informal sector activities which may have absorbed a significantly larger proportion of rural-urban male migrant workers. For female migrants in both streams and in the urban population, other services was the single most important category of employment.

Table 56. Distribution of main workers by industrial categories, Punjab, Urban, 1991

Industrial category	*Male*		*Female*	
	Number	*Percentage*	*Number*	*Percentage*
Cultivators	73 719	4.40	1 342	1.12
Agricultural labourers	125 421	7.49	4 359	3.63
Livestock, forestry, fishing etc. and allied activities workers	19 100	1.14	1 496	1.25
Mining and quarrying	130	0.01	2	0.00
Manufacturing and processing in household industry workers	27 468	1.64	3 452	2.88
Manufacturing and processing in other than household industry workers	423 949	25.30	8 584	7.15
Construction workers	74 102	4.42	1 563	1.30
Trade and commerce workers	458 103	27.34	8 985	7.48
Transport, storage & communication workers	121 256	7.24	2 022	1.68
Other service workers	352 319	21.03	88 252	73.51
Total	1 675 567	100.00	120 057	100.00

Source: Census of India, 1991.

Table 57. Distribution of main workers by industrial categories, Punjab, Rural, 1991

Industrial category	*Male*		*Female*	
	Number	*Percentage*	*Number*	*Percentage*
Cultivators	1 820 342	43.79	21 807	14.99
Agricultural labourers	1 262 738	30.37	60 310	41.46
Livestock, forestry, fishing etc. and allied activities workers	27 245	0.66	1 454	1.00
Mining and quarrying	431	0.01	1	0.00
Manufacturing and processing in household industry workers	45 172	1.09	4 992	3.43
Manufacturing and processing in other than household industry workers	226 146	5.44	9 373	6.44
Construction workers	79 215	1.91	1 165	0.80
Trade and commerce workers	172 700	4.15	3 466	2.38
Transport, storage & communication workers	110 042	2.65	467	0.32
Other service workers	413 254	9.94	42 430	29.17
Total	4 157 285	100.00	145 465	100.00

Source: Census of India, 1991.

There are noticeable differences in the employment patterns of migrants in the rural-rural and urban-rural streams. In the urban-rural stream of migration, smaller proportions of male migrants were identified as cultivators and agricultural labourers and more were engaged in non-household manufacturing and processing. The pattern of distribution of migrants in the urban-rural stream of migration is quite different than the classifications of either rural or urban workers in the state. However, in the case of urban-rural migrant workers, it is not possible to pin-point any specific sector of employment in which they are concentrated.

Table 58. Distribution of migrant main workers by industrial categories, Punjab, 1991 (All durations of residence)

Industrial category	*Rural-rural*		*Rural-urban*		*Urban-urban*		*Urban-rural*	
	Male	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*
Cultivators	159 630 (38.76)	21 270 (20.04)	11 040 (3.39)	870 (2.78)	4 500 (1.77)	520 (1.14)	9 970 (17.17)	1 500 (9.69)
Agricultural labourers	102 280 (24.83)	42 140 (39.71)	19 030 (5.85)	2 100 (6.70)	10 760 (4.23)	1 280 (2.81)	10 390 (17.89)	3 910 (25.77)
Livestock, forestry, fishing etc. and allied activities workers	6 170 (1.50)	1 290 (1.22)	7 320 (2.25)	580 (1.85)	3 500 (1.38)	710 (1.56)	1 130 (1.95)	140 (0.92)
Mining and quarrying workers	120 (0.03)	100 (0.09)	250 (0.08)	10 (0.03)	160 (0.06)	100 (0.22)	30 (0.05)	10 (0.07)
Manufacturing and processing in household industry workers	5 040 (1.22)	2 940 (2.77)	3 900 (1.20)	870 (2.78)	3 100 (1.22)	1 110 (2.44)	780 (1.34)	690 (4.55)
Manufacturing and processing in other than household industry workers	43 360 (10.53)	7 340 (6.92)	92 020 (28.27)	2 890 (9.23)	69 060 (27.16)	3 190 (7.01)	10 310 (17.75)	1 030 (6.79)
Construction workers	10 580 (2.57)	1 060 (1.00)	17 900 (5.50)	600 (1.92)	12 140 (4.77)	580 (1.27)	2 210 (3.81)	200 (1.32)
Trade and commerce workers	21 700 (5.27)	2 630 (2.48)	58 550 (17.99)	1 940 (6.19)	58 820 (23.13)	3 850 (8.46)	6 090 (10.49)	710 (4.68)
Transport, storage & communication workers	12 720 (3.09)	770 (0.73)	27 630 (8.49)	500 (1.60)	20 870 (8.21)	690 (1.52)	2 760 (4.75)	190 (1.25)
Other service workers	50 250 (12.20)	26 590 (25.05)	87 890 (27.00)	20 960 (66.92)	71 350 (28.06)	33 500 (73.58)	14 410 (24.81)	6 790 (44.76)
Total	411 850 (100.00)	106 130 (100.00)	325 530 (100.00)	31 320 (100.00)	254 260 (100.000)	45 530 (100.00)	58 080 (100.00)	15 170 (100.00)

Source: Census of India, 1991, *Migration Tables.*

Note: Percentages are given in parentheses.

3. Incidence of poverty among migrants

Official estimates of poverty incidence in India are based on the method of a head-count of the poor below a predetermined poverty line. The poverty lines for rural and urban areas were defined as the minimum expenditure needed per capita to obtain the calorie norms of 2,400 in rural areas and 2,100 in urban areas on the basis of an all-India consumption basket for 1972/73. This estimate of poverty line has been updated in subsequent years to take into account changes in price levels.

Based on this approach, the incidence of poverty in India has been estimated for various years using the all-India consumer expenditure survey results. Table 59 provides this information. These official statistics indicate a significant decrease in both rural and urban poverty incidence. There has been a considerable debate on the methodology adopted by official agencies and alternate estimates have been generated (Minhas *et al.*, 1991; and Tendulkar *et al.*, 1993). Most of these estimates are higher than the official estimates of incidence of both rural and urban poverty. However, all the estimates suggest that there is a discernable trend of decrease in poverty incidence in both rural and urban areas.

Table 59. Estimates of poverty in India

(numbers in millions)

Year	*Number and percentage of population below poverty line*					
	Rural		*Urban*		*Total*	
	No.	*(%)*	*No.*	*(%)*	*No.*	*(%)*
1972/73	244.20	54.1	47.30	41.3	291.50	51.5
1977/78	253.10	51.2	53.70	38.2	306.80	48.3
1983	221.50	40.4	49.50	28.1	271.00	37.4
1987/88	195.90	33.4	41.70	20.1	237.70	29.9
1989/90	133.1	21.7	29.8	14.3	162.9	19.8
1990/91	128.6	20.6	24.7	11.5	153.3	18.3
1992	144.3	22.4	28.7	12.7	173.1	19.9

Sources: (1) Government of India, *Report of the Expert Group on Estimation of Proportion and Number of Poor*, Planning Commission, 1993. (For information up to 1987/88)

(2) S.P. Gupta (1995), for Information on 1989/90, 1990/91 and 1992.

These aggregate trends have to be kept in view while assessing the poverty incidence among migrants and non-migrants. Information on income or expenditure levels is usually available only through micro-studies. Generalization at macro-level from such studies is beset with problems of compatibility, definitional variance and geographic coverage. The only national-level survey results available on migrants' consumption expenditure is the 38th round of the National Sample Survey conducted in 1983. The results of this survey are presented in table 60.

The unadjusted National Sample Survey results give higher estimates of poverty than the official estimates presented in table 59. At the estimated poverty line of Rs. 117.50 monthly per capita expenditure, 34.17 per cent of all urban sample households were below the poverty line. Among the migrant households, only 19.59 per cent were below the poverty line. But among migrants with duration of residence of less than 5 years, 27.87 per cent were below the poverty line (table 60).

This information indicates that the incidence of poverty among migrant households is lower

Table 60. India, incidence of poverty among migrants in urban areas and total urban population, 1983

Monthly per capita expenditure (Rs.)	*All households*	*Migrant households*	*Migrants with duration of residence up to 5 years*
0-15	1.76	3.1	2.11
50-117.5	32.41	16.49	25.76
117.5-200	33.78	27.44	33.61
200-300	17.14	23.73	20.98
300+	14.77	29.24	17.54
All expenditure classes	100.00	100.00	100.00

Source: *Sarvekshana*, Journal of NSSO, vol. IX, No. 4, 1986 and vol. XIII, Nos. 2 & 3, 1989, Dept. of Statistics, M/o Planning, GOI.

Note: The dotted line represents the poverty line, which has been estimated using the Planning Commission's norm adjusted to 1983/84 prices.

than that for the general urban population. It is of some interest to note that amongst the migrants, the incidence of poverty is higher for recent migrants. The distribution in higher expenditure classes is also indicative of relatively greater prosperity of migrant households.

Migrants, in general, thus have higher incomes than non-migrant households. However, more recent migrants appear to be only a shade better off than the non-migrant households. But migrant households, over a longer period in the city, seem to consolidate their earnings quite significantly as compared with non-migrant households.

F. POLICY IMPLICATIONS AND RECOMMENDATIONS

The major findings of this study on trends, patterns and implications of rural-urban migration in India are summarized as follows.

First, there has been a significant slowing down in the pace of urbanization in India in recent years. The urban population growth rate declined from 3.83 per cent per annum in 1971-1981 to 3.09 per cent per annum in 1981-1991.

Second, the contribution of rural-urban migration to India's urban growth has also declined substantially during this period, both in absolute and proportionate terms. This seems to be the major factor in slowing down of the pace of urbanization in India in the 1980s.

Third, there has been no major change in the broad pattern of migration between 1971 and 1981 at the national level and between 1981 and 1991 in the state of Punjab, pertaining to the spatial patterns of migration. The relative importance of various streams of migration and characteristics of migrants are quite similar over the decade. Two noteworthy changes in the trends of migration are: (i) a decline in the relative share of rural-rural migration and an increase in the share of rural-urban and urban-urban migration both at the national and regional levels, and (ii) an increase in the proportion of females in the rural-urban and urban-urban streams of migration. Both of these changes are reflections of the process of urbanization and structural change taking place in the country.

Fourth, migrants in the rural-urban and urban-urban streams appear to have higher literacy rates and economic participation rates than observed in the general urban and rural populations. Also, a smaller proportion of migrants in urban areas fall below the poverty line than recorded in the case of the urban population in general.

Fifth, the analysis of trends and patterns of migration is severely constrained by the lack of suitably processed secondary data. A great deal of data collected by the Census and NSS remains underutilized for this reason.

1. Policy implications

These major findings and their policy implications are discussed in this section. Although, there are no direct policies or programmes of population redistribution in India, there have been many indirect policies concerning urbanization and migration. Within the federal democratic structure, any direct policy which restricts movement of people within the country would be regarded as unconstitutional. However, the indirect policies on urbaniztion and migration have multifaceted objectives of agricultural and rural development, industrial development in backward areas and restricting growth of metropolitan areas.

(a) Urbanization and migration policies

The moderate growth of urban population and declining importance of rural-urban migration in that growth in India are in sharp contrast to the prevailing notions among policy makers. In spite of conclusive evidence, policy makers have generally believed that there is rapid urbanization in India and it is due to increasing rural-urban migration. It is imperative, therefore, to enlighten the policy makers about the facts related to urbanization and migration trends to facilitate appropriate changes in existing policies.

The slowing down of urbanization and decline in the contribution of rural-urban migration has occurred during a period of high economic growth. The Indian economy (gross national product, or GNP) grew at a rate of 3.2 per cent per annum during 1971-1981, and at 5.3 per cent during 1981-1991. Given the established relationship of economic development and urban growth, one would have expected a higher rate of growth of urban population and an increase in the importance of rural-urban migration.

Various hypotheses are propounded by scholars to explain this declining trend in Indian urbanization. One set of hypotheses relates to the statistical and definitional features of Census enumeration. Others relate to the effectiveness of the indirect policies which had the implicit objective of curbing rural-urban migration. In the subsequent paragraphs each of these is briefly discussed.

(i) Statistical and definitional aspects

In India, settlements are designated as "Urban" places by the local Census Directorate. Every settlement with a municipal local government is identified as an urban place. Besides this, allsettlements with a population of 5,000 or more, with a density of 400 per sq.km. and three-fourths of the male workforce engaged in non-agricultural activities are classified as urban. But this information about a settlement is available only after the Census enumeration is complete, while the places are designated as urban prior to the beginning of Census enumeration. For this purpose, all rural settlements with a population of 4,000 and above in the previous Census are considered and a special tabulation is made to ascertain if three-fourths of male working population is engaged in non-agricultural occupations. There is thus a lag effect in declaring a settlement as an urban place. There is also a likelihood of omitting some rapidly growing villages below a population of 4,000.

The Indian Census uses the concept of "Urban Agglomeration", defined as a continuous urban spread and normally consisting of a town and its adjoining urban out-growths that are outside the statutory limits of the town. This physical demarcation of urban agglomeration excludes many peripheral areas that may not be contiguous, but are well within commuting zones of large cities. Given the high cost of land and housing in cities and their deteriorating infrastructure, many city dwellers and migrants have opted to reside in these suburban places that are outside the designated urban agglomeration. Delhi, Hyderabad, Pune, Bhopal, Jaipur and Chandigarh are cities whose peripheral countryside has experienced sizeable in-migration (Krishan, 1993).

The statistical effect of exclusion of these peripheral areas from an urban agglomeration is an underestimation of rural-urban migration and an overestimation of urban-rural migration. The resultant estimate of net rural-urban migration is likely to be an underestimation.

(ii) Master Plans

Past policies of controlling growth of cities have led to the preparation of Master Plans for cities that provide green-belts around the periphery of cities and emphasize establishment of satellite towns to decongest cities. These policies have been quite ineffective in curbing the physical growth of urban settlements. The suburbanization processes that are underway in Indian cities are manifested in the changing land-use and changing skylines of the rural periphery.

(b) Rural development policies

With nearly three fourths of India's population living in rural areas and nearly two thirds of the workforce engaged in agricultural activities, India is still predominantly an agrarian society. Political representation in the national parliament has been fixed on the basis of the 1971 population when only 17 per cent of the population was urban. With the increase in share of urban population to nearly 26 per cent, there is an under-representation of urban population in the national parliament today. With a larger number of members representing rural areas, there is an overt emphasis on rural development in national policies and programmes. It is generally perceived by the political leaders that with improved living conditions in rural areas, there would be reduced rural-urban migration.

A series of policies and programmes have been initiated for the agricultural sector. Land reforms in rural areas attempted to reduce concentration of agricultural land-holdings and promote redistribution of surplus farm lands among landless households. Subsidized inputs such as fertilizers, water, seeds, and power are provided to reduce operating costs of farmers. The Government is a major buyer of grains at prices that provide reasonable returns to the farmers. With no income tax on agricultural income, Indian farmers are provided an incentive to improve agricultural practices. The national banks are also required to earmark up to 40 per cent of their lending for agriculture and other priority sectors in rural areas.

In addition, major programmes of rural employment generation have been pursued. In the State of Maharashtra, the Employment Guarantee Scheme provides employment through public works to all registered persons. The national rural employment programme (Jawahar Rojgar Yojana) provides funds to rural local governments to create community infrastructure through the use of local labour. The various rural poverty alleviation programmes are packaged as the Integrated Rural Development Programme. These programmes include skill development, credit at subsidized rates for micro-enterprises and other income generation programmes. In the social sector, free housing to the economically weaker section, public health and educational facilities for all and specific programmes for the scheduled castes and tribal areas are implemented.

Official statistics indicate a dramatic decline in rural poverty incidence from 54 per cent in 1972/73 to 40 per cent in 1983/84 and 33 per cent in 1987/88. (Planning Commission, 1993). It is thus quite plausible that various agricultural and rural development programmes have had some impact in reducing poverty incidence and may have led to a decline in the push factors associated with rural-urban migration. However, as indicated by this study, there is a discernable selectivity among rural-urban migrants in age, education and income level. These patterns have also remained more or less similar over the past two decades. Thus, the causal relationship between rural development and declining rural-urban migration is not clearly established.

(c) Industrial location policies

There have been explicit policies in the past to reduce the concentration of industries in and around large urban centres and promote industrialization of backward areas. The industrial policy enunciated in the mid 1950s had reserved a number of industries for the public sector. Many of the large public sector firms in steel, power, fertilizer and defence related industries were located in the less developed regions of the country. It was expected that these firms would act as growth centres and alter the regional pattern of migration and urbanization.

Incentives in the form of capital and tax subsidies were made available to private enterprises which were located in designated backward areas. These industrial policies were successful in their objectives of deconcentration of industries from large urban areas. However, they did not lead to a major spatial reorganization of industrial development. They merely hastened the process of industrialization in and around major cities. Thus, the implicit objectives of balanced urban development were not achieved.

The industrial policy also prohibited further concentration of industries within urban areas. New industrial firms in the private sector were not allowed to locate within 25 km. of a major urban centre. The aim was to deconcentrate industrial development and reduce the growth of population of large cities. This restrictive policy led to industrial development on the periphery of major urban centres. As the distance of 25 km. was well within commuting range, most workers lived in the city. This policy did not lead to reduction in growth of large cities. It, in fact, accentuated the process of suburbanization by inducing non-agricultural activities in the rural hinterland of cities.

Large-scale industries, which could internalize the agglomeration benefits of urban locations, did locate further away in the backward areas. Over the two decades, backward areas in the highly industrialized states of Maharashtra, Gujarat and Karnataka have become major industrial centres. This has altered the trends of urban growth and pattern of urbanization in these states. The large cities in these states have lower rates of growth than some medium-sized towns. Yet, the direct employment generation through industrialization has been small, given the high capital/labour ratio of modern industries. Thus the impact of this initiative on rural-urban migration has been quite limited.

On the whole, the slowing down of rural-urban migration in India is not directly attributable to Governmental efforts toward agricultural rural development, or policies of industrial dispersal. The industrial location policies and high cost of housing in cities has caused greater urban sprawl in the past two decades. This has not been captured adequately in the demarcation of urban agglomerations and there is a need for further research to identify the impact of these policies on rural-urban migration.

(d) Impact of economic reforms on urbanization and migration patterns

The impact of macro-economic policies on urbanization needs to be assessed. The policy implications of these impacts would require a major modification of the current policies. Urbanization is intricately linked with a nation's economic development process. Yet, while most countries have elaborate policies and programmes to promote economic growth, little attention is given to their consequences on patterns and level of urbanization. The positive contribution of urban areas in a nation's economic growth is relegated to the background, and instead urban growth containment policies are advocated.

In India, since August 1991, a series of reforms in the financial, trade and industrial sectors was ushered in. Aimed at bringing about stability and high growth of the economy, these reforms were designed to deregulate the Indian economy and encourage investment by domestic and international enterprises.

It may be too early to assess the impacts of this liberalised economic regime on urbanization and migration. However, the recent trends of investment in the economy suggest an increasing pace of urbanization and concentration of industrial and business enterprises in and around the metropolitan cities. Small towns with a large number of units in a single industry such as garments, textiles, brass, electrical and diesel motors etc. have also experienced rapid growth due to a boom in exports.

The likely urban pattern as a result of economic liberalization will be an increasing concentration of activities in and around the 23 metropolitan cities of India. One would expect increasing rural-urban and urban-urban migration to these large cities.

Migrant selectivity is likely to be more pronounced in the next decade in these metropolitan cities. These cities are perceived as gateways to the globalization of the India economy and thus the demand for more educated and skilled labour will be very high. Growth of the formal tertiary sector in the metropolitan economy is expected to be more rapid. This would also induce a greater expansion of informal sector activities in cities. On the whole, India is likely to witness an increase in the concentration of urban population in large cities.

2. Recommmendations

The available information base on migration in India is insufficient to establish any causal relationship between migration trends and the various indirect population redistribution policies. In absence of detailed migration tables from the 1991 Census, it is also difficult to explain the deceleration of urban growth and the decline in rural-urban migration in 1981-1991. The policy implications of the aggregate trends can be established only with an improved information base and specific research that needs to be undertaken using the improved information and a few micro-level studies. It is recommended that research in specific areas is needed to identify certain key policy interventions and assess the impact of existing policies. This research will be greatly facilitated if the information collected by the Census and NSS organization is suitably processed.

(a) Information base for migration research

As indicated in Section A of this report, the major source of information for migration research is the decennial population census. Substantial information on migration is collected in the individual slips. However, in its analysis, only the information on migration flows is exhaustively reported. The migrant characteristics, such as labour force participation, occupational distributions, age, literacy level etc., are analysed only for the subgroup of those who report employment as a reason for migration. Some of this information is available only for all-duration migrants or for migrants with duration of residence below ten years. This restrictive tabulation plan does not permit detailed analysis of migrant characteristics. Therefore, it is recommended that detailed tabulations of migration data be undertaken by the Census Organization to facilitate further research in this field.

(b) Need for further research

A great deal of research has been done by geographers, demographers, sociologists and economists on various facets of rural-urban migration in India. Most of the research provides factual descriptions of various aspects of migration. Moreover, the existing research does not provide conclusive evidence regarding a few key questions, particularly pertaining to the determinants and consequences of rural-urban migration. It is, therefore, difficult to generalize and project future migration trends.

The review of existing literature on rural-urban migration shows that adequate research has not been conducted in the following areas; (i) likely pattern of population redistribution in response to the macro-economic changes taking place in India; (ii) international migration, particularly immigration from neighbouring countries; (iii) the incidence of circular migration and commuting; (iv) changing structure of migration streams, in terms of single vs. family migration; (v) dynamics of female migration, both autonomous and associational; (vi) the impact of rural-urban migration on women's age at marriage, fertility, economic participation and status; (vii) determinants of migration and relationship between migration flows and the levels of development and labour market conditions in the sending as well as receiving regions; (viii) the impact of rural-urban migration on rural growth or stagnation; (ix) the impact of rural-urban migration on urban employment, incomes, housing and so on and the relationship between rural-urban migration and the incidence of urban poverty; and (x) evaluation of various population redistribution policies and programmes implemented in the country.

Further research in these areas will certainly enhance the understanding of the trends, patterns and implications of rural-urban migration in India.

ACKNOWLEDGEMENT

Ms. Archana Roy and Ms. Promila Jain have provided research assistance, Ms. Sangeeta Vijh has provided data and word processing assistance and Mr. Ajoy Kashyap has prepared the map.

REFERENCES

Banerjee, Biswajit and S.M. Kanbur (1981). On the specification and estimation of macro rural-urban migration functions: With an application to Indian data. *Oxford Bulletin of Economics and Statistics*, vol. 43, No. 1, pp. 1-29.

Banerjee, Biswajit (1986). *Rural to Urban Migration and The Urban Labour Market.* Bombay: Himalaya Publishing House.

Bogue, D.J. and K.C. Zachariah (1962). Urbanization and migration in India. In *India's Urban Future*, Roy Turner, ed. Berkeley: University of California Press.

Bose, Ashish (1961). Rural-urban migration. *Seminar*, No. 18, pp. 22-24.

___________ (1980). *India's Urbanisation, 1901-2000.* New Delhi. Tata Mcgraw-Hill.

Dandekar, V.M. and Rath, N. (1971). *Poverty in India.* Lonavala: Indian Institute of Political Economy.

Davis, Kingsley (1951). *The Population of India and Pakistan.* Princeton: Princeton University Press.

Desai, A.R. and S.D. Pillai, eds. (1970). *A Profile of an Indian Slum.* Bombay: University of Bombay.

Fogarty, T. and Dinesh Mehta (1984). On the micro-economics of rural to urban migration: A conceptual framework and some empirical observation. *Indian Journal of Regional Science*, vol. 26, No. 2, pp. 121-139.

Gosal, G.S. and G. Krishan (1975). Patterns of internal migration in India. In *People on the Move*, L.A. Kosinski and R.M. Prothero, (eds.), London: Methuen.

Greenwood, Michael J. (1971). A regression analysis of migration to urban areas of a less developed country: The case of India. *Journal of Regional Science*, vol. 11, No. 2, pp. 253-262.

Gupta, S.P. (1995). Economic reform and its impact on poor. *Economic and Political Weekly*, vol. 30, No. 22, pp. 1295-1313.

Jetley, Surinder (1987). Impact of male migration on rural females. *Economic and Political Weekly*, vol. 22, No. 44, pp. ws 47 – ws 63.

Khan, Najma (1981). Pattern of male outmigration from eastern Uttar Pradesh – A study of twelve villages. In *Frontiers in Migration Analysis*, Mandal, R.B. , ed. New Delhi: Concept Publishing Company, pp. 491-503.

Krishan, G. (1993). The slowing down of Indian urbanisation. *Geography*, vol. 78, Part I, pp. 80-84.

Kundu, A. (1986). Migration, urbanisation and inter-regional inequality – The emerging socio-political challenge. *Economic and Political Weekly*, vol. 21, No. 46, pp. 2005-2008.

__________ (1992). A survey of research on urban development in India. In *Urban Development and Urban Research in India,* A. Kundu, ed. New Delhi: Khama Publications, pp. 99-155.

Lewis, W.A. (1954). Economic development with unlimited supply of labour. Reprinted in *The Economics of Underdevelopment,* A.N. Agarwal and S.P. Singh, eds. Delhi: Oxford University Press, pp. 381-399.

Malhotra, G.K. (1974). *Birth Place Migration in India.* New Delhi: Census of India.

Mathur, O.P. (1992). Migration in India's process of urbanization and change: A preliminary report. Paper presented at the Pre-conference seminar on Migration and Urbanization: Inter-relationships with Socio-economic Development and Evolving Policy Issues, organized by ESCAP, UNFPA and Korean Institute for Health and Social Affairs, 21-25 January, Seoul.

Majumdar, A. (1980). *In-migration and Informal Sector: A Case Study of Urban Delhi.* New Delhi: Vision Books Private Limited.

Majumdar, T.K. (1983). *Urbanising Poor – A Sociological Study of Low Income Migrant Communities in the Metropolitan City of Delhi.* New Delhi: Lancer Publication.

Mehta, D. and P. Pathak (1994). Economic development, globalisation and urban governance in India. Paper presented at the meeting of Group of Urban Research Institute, University of Toronto, held at Lonavala, India, 12-13 June.

Minhas, B.S. *et al.* (1991). Declining incidence of poverty in the 1990's: Evidence versus artifacts. *Economic and Political Weekly,* vol. 26, Nos. 27 and 28, pp. 1673-1682.

Mitra, Ashok *et al.*, (1980). *Indian Cities: Their Industrial Structure, Immigration and Capital Investment.* New Delhi: Abhinav Publication.

Mitra, Arup (1988). Spread of slums: The rural spill-over. *Demography India,* vol. 17, No. 1, pp. 29-42.

National Institute of Urban Affairs (1986). *Patterns of Migration in the National Capital Region.* Research Study Series Number 7, New Delhi.

__________ (1988). *State of India's Urbanisation.* New Delhi.

__________ (1989). *Profile of the Urban Poor: An Investigation into their Demographic, Economic and Shelter Characteristics,* Research Study Series Number 40, New Delhi.

__________ (1990). *Basic Services and the Urban Poor,* Research Study Series Number 46, New Delhi.

__________ (1992). *Single Women Migrant Workers in Asian Metropolis : A Case Study of Delhi.* Prepared for UNESCO, New Delhi.

Oberai, A.S., Pradhan H. Prasad and M.G. Sardana (1989). *Determinants and Consequences of Internal Migration in India: Studies in Bihar, Kerala and Uttar Pradesh.* Delhi: Oxford University Press.

Papola, T.S. (n.d.). *Urbanisation, Rural-Urban Migration and Growth of Informal Sector.* Working Paper No. 51, Giri Institute of Development Studies, Lucknow.

Pathak, Pushpa (1992). Urbanization, female migration and employment in India: Emerging trends and implications. Paper presented at the Expert Group Meeting on Trends, Patterns and Implications of Rural-urban Migration, organized by ESCAP, 3-6 November, Bangkok.

__________ and Patnaik, I. (1993). The gender dimension of urbanisation in India. In *Urbanisation: Trends, Perspectives and Challenges,* J. Diddee and V. Rangaswamy, eds. Jaipur: Rawat Publications, pp. 131-144.

__________ (1995). Dynamics of single female migration to cities in India. Paper presented at the International Symposium on Gender and Migration, Pretoria, South Africa, 9-13 April.

Premi, M.K. (1981). Role of migration in the urbanisation process of countries: A case study of India. *Social Action,* No. 31, pp. 291-310.

__________ (1984). *City Characteristics, Migrants and Urban Development Policies.* Honolulu: East-West Centre.

__________ (1986). Migration to cities in India. In *Studies in Migration,* M.S.A. Rao, ed. Delhi: Manohar Publications, pp. 39-84.

__________ (1991). India's urban scene and its future implications. *Demography India,* vol. 20, No. 1, pp. 41-52.

Raju, B.R.K. (1989). *Developmental Migration: A Processual Analysis of Inter-state Rural-urban Migration.* New Delhi: Concept Publishing Co.

Rao, M.S.A. (1981). Some aspects of sociology of migration. *Sociological Bulletin*, vol. 30, No. 1, pp. 20-38.

Salih, K. and Fu-Chen Lo (1985). Structural change and spatial transformation: Review of urbanization in Asia. Paper presented at the Conference on Population Growth, Urbanization and Urban Policies in the Asia-Pacific Region, East-West Centre, Honolulu.

Salas, Rafael, M. (1986). *The State of World Population.* New York: UNFPA.

Singh, Andrea M. and A. de Souza (1980). *The Urban Poor, Slum and Pavement Dwellers in Major Cities of India.* New Delhi: Manohar Publications.

Singh, J.P. (1980). Population mobility in India: Studies and prospects. *Sociological Bulletin*, vol. 29, No. 1, pp. 33-62.

__________ (1986). *Patterns of Rural-Urban Migration in India.* New Delhi.: Inter-India Publication.

__________ (1987). Educational differentials in cityward migration in India. *Man in India*, vol. 67, No. 1, pp. 23-35.

__________ (1988). Age and sex differentials in migration in India. *Canadian Studies in Population*, vol. 15, No. 1, pp. 87-99.

__________ (1992). Migration in India: A review. *Asian and Pacific Migration Journal* (Bangkok), vol. 1, No. 1, pp. 168-192.

Skeldon, Ronald (1986). On migration patterns in India during the 1970s. *Population and Development Review* (New York), vol. 12, No. 4, pp. 759-779.

Sovani, N.V. (1966). *Urbanisation and Urban India.* New York: Asia Publishing House.

Srinivasan, K. (1990). Exodus to cities and quality of life. *Yojana*, August 15, pp. 21-27.

Tendulkar, S.D. *et al.* (1993). *Poverty in India: 1970-71 to 1988-89* Report prepared for the International Labour Organisation, New Delhi.

Thadani, Veena N. and Michael P. Todaro (1984). Female migration: A conceptual framework. In *Women in the Cities of Asia: Migration and Urban Adaptation*, James T. Fawcett, Siew-Ean Khoo and Peter C. Smith, eds. Boulder, Colorado: West View Press, pp. 36-59.

Todaro, Michael P. (1976). *Internal Migration in Developing Countries: A Review of Theory, Evidence, Methodology and Research Priorities.* Geneva: International Labour Organisation.

__________ (1984). Urbanisation in developing nations: Trends, prospects and policies. In *Urban Development in the Third World*, Pradip K. Ghosh, ed. Westport, Connecticut: Greenwood Press, pp. 7-26.

Unni, K. Narayanan (1992). Rural-urban migration in India. Paper presented at the Expert Group Meeting on Trends, Patterns and Implications of Rural-urban Migration, organized by ESCAP, 3-6 November, Bangkok.

Visaria, P. and D. Kothari (1985). *Data Base for the Study of Migration and Urbanization in India: A Critical Analysis.* Gujarat Institute of Area Planning, Working Paper No. 2, Ahmedabad.

Visaria, P. (1990). Internal migration in India: The emerging perspective and policy options. Paper presented at the Workshop on Internal Migration in India: Perspectives and Policy Options, organized by the Gujarat Institute of Area Planning, 26 April, Ahmedabad.

__________ (1993). Urbanization in India, an unpulished manuscript.

The World Bank (1993). *World Development Report, 1993.* New York: Oxford University Press.

Yadav, K.N.S. (1989). *Rural-Urban Migration in India: Determinants, Patterns and Consequences.* New Delhi: Independent Publishing Co.

Zachariah, K.C. (1959). Migration to Greater Bombay, 1941-51. *The Indian Journal of Social Work,*. vol. 20, No. 3, pp. 190-192.

__________ (1964). A Note on internal migration in India. In *Rural Urban Differences in South Asia.* Bangkok: UNESCO.

__________ (1968). *Migrants in Greater Bombay.* Bombay Research Monograph.

ANNEX 1

Tabulation Plan for Migration Data in 1991 Census

Table No.	*Title*	*Lowest level of presentation*
D-1	Population classified by place of birth	District
D-2	Migrants classified by place of last residence and duration of residence in the place of enumeration	State
D-3	Migrants classified by place of last residence and duration of residence and reason for migration	State & City
D-4	Main workers, marginal workers, non-workers, those seeking/available for work and literacy among those reporting employment as reason for migration by age, sex and duration of residence.	State & City
D-5	Migrants from rural areas within the state of enumeration reporting employment as reason for migration by age, sex, educational level and duration of residence – Urban	State & City
D-6	Migrants from urban areas within the state of enumeration reporting employment as reason for migration by age, sex, educational level and duration of residence – Urban	State & City
D-7	Migrants from rural areas outside the state of enumeration reporting employment as reason for migration by age, sex, educational level and duration of residence – Urban	State & City
D-8	Migrants from urban areas outside the state of enumeration reporting employment as reason for migration by age, sex, educational level and duration of residence – Urban	State & City
D-9	Migrants reporting employment as reason for migration, now seeking/available for work by age, sex, educational level and duration of residence – Urban	State & City
D-10	Migrants to cities by place of last residence by reasons for migration	City
D-11	Migrant workers by place of last residence by industrial categories	District & City
D-12	Migrant workers other than cultivators and agricultural labourers from place of last residence by occupational division	District & City
D-13	Migrants from place of last residence by age, sex, educational level and duration of residence	State & City
D-14	Migrant workers other than cultivators and agricultural labourers reporting 'employment' as reason for migration by duration of residence, educational level, occupational division and sex	State & City
D-15	Persons born in other districts of the state and enumerated in this district	District
D-16	Migrants by place of last residence with duration of residence of 0-9 years by age	State
D-17	Migrants by literacy, main workers, marginal workers and non-workers among them	District & City

Note: The word 'Cities' in column 3 above stands for cities with population of 1 million and above for tables D-3, D-5, D-6, D-7 and D-8; cities with population half million and above for tables D-4, D-9, D-13, D-14 and D-17. For other tables 'City' stands for cities or urban agglomerations with population of 100,000 or above.

ANNEX 2

Database for Estimating Components of All-India Urban Growth, 1971-1981 and 1981-1991

(Population in million)

Population	*1971-81**	*1981-91***
Urban population of the terminal year	157.68	212.87
Urban population of the base year	107.83	156.42
Absolute increase	49.86	56.45
Base year population of towns declassified in the terminal year	0.93	0.71
Urban population of the base year exclusive of the population of declassified towns	106.90	155.71
Population of new towns	10.29	10.61
Net population of new towns after deducting the base year population of declassified towns	9.36	9.90
Average annual rate of natural increase of urban population per thousand persons	19.3	19.5

Notes:

1. * Excluding Assam
   ** Excluding Assam & Jammu and Kashmir
2. Based on the Provisional Population Tables of the 1991 Census and Final Tables of the 1981 Census.
3. Jammu and Kashmir is a disputed territory, the final status of which has not yet been determined.

III. TRENDS, PATTERNS AND IMPLICATIONS OF RURAL-TO-URBAN MIGRATION IN NEPAL

Bal Kumar KC *

A. BACKGROUND

One of the serious population problems emerging during the last decade is the migration of people from rural-to-urban areas. Most metropolitan and large cities in developing countries have experienced a heavy migration of people from rural areas, which warrants national strategic planning to manage, to reduce or to reverse the trends.

Rural-to-urban migration takes place in societies in transition from agricultural to urban and industrial economies. Such migration encourages qualified workers to move from rural villages to urban areas and their periphery. Often those left at home get trapped in a vicious circle of poverty and rural underdevelopment. Rural areas thus continue to lag behind in spite of heavy investment in rural development efforts.

Despite the attempt to gain knowledge of such important aspects of migration, rural-to-urban migration has not been monitored by many governments. National statistical organizations do not attach much importance to collecting census or survey data to capture the magnitude, nature, causes and consequences of rural-to-urban migration. Because of an overwhelming pattern of migration being rural-to-rural in the past, rural-to-urban migration was relatively neglected. As the rural resources of land and forest are exhausted, resulting in more and more landless people, rural-to-urban migration is the only way out for people looking for better employment opportunities. Rural areas thus get trapped in underdevelopment because of loosing able persons to towns and cities.

Decennial censuses do not necessarily collect migration statistics in a comparative way for various migration characteristics. Further, comparability is lost due to constant changes in spatial boundaries. While fertility and mortality studies are conducted periodically with virtually no effect from spatial apportionment, the very definition of migration changes with change in spatial extent. Thus comparability is affected by change in space and in duration of residence. Fullest analysis of available census and survey data on migration is thus imperative. The objectives of the present study are to analyze the trends, patterns, and implications of rural-to-urban migration.

For this purpose, relatively adequate data exist in Nepalese censuses. With regard to the implications of emerging gender patterns of rural-to-urban migration, the main impediment is that, in spite of increasing female migration in most developing countries, census information on their age, marital status, education, skill level, employment, income, patterns of remittances and the way females adapt to the urban way of life are often not tabulated (ESCAP, 1994a). Census tables often do not present the labour force participation of females in urban areas. Also, the issues related to the trafficking of women, low wages and harassment at work can be discussed only subjectively (Thapa, 1989).

In light of the issues raised here, this paper will present the situation of Nepal as a background to the study; review existing literature, both theoretical and empirical, especially of Nepal; discuss methodological issues and analyze and interpret relevant data on the topic under study.

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B. THE CASE OF NEPAL

Nepal is an independent country situated on the southern slopes of the mid-Himalayas. At the 1991 census, it had a population of 18.5 million in an area of 147,181 square kilometres. Stretching over a length of 885 kilometres (east-west) and a width of 145 to 241 kilometres (north-south), the country is divided into three elevation zones: mountain, hill and *tarai*. The mountain zone has a rugged topography ranging in altitude from 4,877 metres to 8,848 metres above sea level. It has sparse human habitation and no urban centres. The hill zone contains the convergence of traditional Nepalese civilization, where three prominent towns: Kathmandu (the Capital), Lalitpur, and Bhaktapur are located. Towns in other hill areas are also emerging. The plain, called *tarai* locally, is a fertile tropical lowlands and has many towns of different sizes because of its flat land and accessibility to northern India. Sandwiched between China in the north and India in the east, south, and west, the country is a transition zone between the densely populated Gangetic plain of India and the sparsely populated Tibetan autonomous region of China.

Nepal experienced one of the highest annual population growth rates in South Asia (2.66 per cent) during the 1971-1981 period. The growth rate was 2.08 per cent during the period 1981-1991, but it is by no means low compared with the growth rates of other south Asian countries and much higher than that of many Asian countries. Increase in the absolute number of people during the last two decades remained virtually the same. With a high birth rate of 41.6 per 1,000 people, a declining death rate of 13.3 per 1,000 (CBS, 1994a), and declining infant and child mortality rates because of expanding health services, the natural growth rate of population is still high. Internal migration has been redistributing population from the mountain and hill regions to the *tarai*, predominantly rural-to-rural (over 80 per cent). Available statistics do not allow for a definitive figure for negative or positive international migration volume but some indications are that Nepal has positive net immigration.

Besides international migration, there is a recent tendency of people moving from rural to urban areas of the country. Dominance of rural-to-rural migration is natural in a country where 90 per cent of the total population lives in villages. But from a mere 2.9 per cent level of urban population in the 1950s, the urban population has gone up to almost 10 per cent. From a mere 10 urban centres with a combined population of only 238,275 in 1952/54, the urban population increased to 336,222 or 3.6 per cent of the total in 1961 with the addition of 6 towns. The 1971 census recorded a total urban population of 461,938, or 4.0 per cent of the total population, by reclassifying five new urban centres and declassifying five that had been included in the 1961 census. The 1981 census added seven more urban centres and reached a total urban population of 956,721, or 6.4 per cent of the total population. By 1991, Nepal had 33 urban centres, 10 urban centres were designated after 1981, six in 1983 and four in 1987. Immediately after the 1991 census, three more centres were added. The total urban population as recorded in the 1991 census stands at 1,695,719, or 9.1 per cent of the total population. With the addition of three more towns, the combined urban population as of 1992 stands at 1,759,904, or 9.5 per cent of the total population.

Urban population growth in Nepal is conditioned by reclassification and amalgamation of rural areas. Most urban centres, except Kathmandu valley towns and some large *tarai* towns, are rural in character. The dichotomy between urban and rural in many urban centres is vague. In this situation, once considered rural-to-rural migration would constitute either intra-urban, urban-to-urban or even rural-to-urban migration.

C. REVIEW OF MIGRATION STUDIES

Most migration studies focus on collecting and analyzing data either for model building or for scientific explanation of determinants of both internal and international migration over time and space. Ravenstein's "Laws of Migration" (1885, 1989) was the earliest attempt to create axioms upon which to search for explanation of migration phenomena. Many research studies primarily focus on migrant characteristics, types, causes and consequences of migration; migrant behaviour and migration decision making (Bogue, 1959; Goldstein and Goldstein, 1981). Most migration studies attempt to prove migration occurs from a desire to convert poverty into relative prosperity by moving either from one rural to another rural area, from a rural to an urban area or from a small urban area to a larger one. In an agrarian society, migration occurs either from rural to urban areas or from labour surplus to both surplus and deficit areas. Interpretation of census data and statistics from periodic surveys become the basis of most migration studies.

On the other hand, divorced from the pain of incomparable, inconsistent and very often inadequate census data, many scholars of an anthropological tradition like to deal with the socio-cultural components of migration in smaller communities. This approach has been relatively successful in understanding migrant behaviour and the process of social cohesion or disintegration arising out of local tradition and culture versus perceived economic opportunities elsewhere but fails to generalize to the wider population.

Many forces of migration propounded by Ravenstein and later expanded by Lee (1966) are still valid for developing countries, particularly with respect to pull and push hypotheses. Search for explanation of migration was also attempted through spatial and human interaction models (Zipf, 1946; Anderson, 1955; Stouffer, 1960). Migration as a demographic process with respect to age and sex selectivity, volume, direction, distance, and assessment of demographic impact on origin and destination has claimed wide acceptance among scholars (Lee, 1966; United Nations, 1974; Zelinsky, 1971). Another type of migration study deals with social dimensions (Managalam and Schwarzweller, 1968) and migration decision making while leaving the origin and choosing a specific destination through an assessment of residential relocation and socio-economic and demographic consequences in the origin and destination. Migration and economic growth in both origin and destination are examined with respect to labour force structure and income level of sending areas creating inequalities in the distribution of regional income (Tachi, 1964). Explanation of such income inequalities is sought through migration differentials with respect to age and sex, literacy, labour force, and income levels (Bogue, 1959). Still another type of study looks for explanatory variables of migration, such as urbanization, income, distance, employment, education, farm size, land holding, and population size (Rogers, 1967; Adams, 1969; Greenwood, 1972; Conway *et al.*, 1982; KC, 1985).

There have been many attempts to examine trends, patterns, and implication of rural-to-urban migration since Mabogunje (1970) attempted to relate this stream of migration with a general systems theory. The contribution in this area, however, is minimal. Exodus of rural people to urban areas in developing countries has been evident but, unfortunately, very little information on rural-to-urban migrants exists in survey and census volumes. Who are these urban migrants? Where is their origin? What part of town do they live in and in which sectors of the urban economy do they work? What are the causes and consequences of their coming to town are unanswered questions. Unless a separate research survey can incorporate these questions and attempt to identify various types of moves (seasonal, circulatory, commuting, return, stepwise, semi-permanent and permanent) and the volume of remittances, it is difficult to examine the relationship between demographic and socio-economic causes and consequences of urban migration and the process of urban growth and urbanization in developing countries (Goldstein and Goldstein, 1981).

Few migration studies definitively and objectively answer why people actually move from origin to destination. One reason is that most migrants themselves do not seem to know why they actually moved. A single reason for moving cannot be ascertained. Push and pull factors may be definitively related to a very few individuals and the decision to migrate cannot be explained in all situations only by push and pull factors. It is difficult to determine whether a migrant has actually moved because of either pull or push factors. Although economic benefit has been considered as the most important factor for migration (Rogers, 1967; Adams, 1969; Greenwood, 1972), the perceived economic benefit at the destination may be a superficial mental construct rather than objectivity (Todaro, 1976). The cost of adjusting to a new environment, especially where rural-to-urban migration is involved, has been a neglected area. A general theory of migration, thus, is difficult to establish. Because of the lack of a integrative approach to deal with migration phenomena from various social science disciplines, Goldscheider (1969) remarked:

> *An examination of migration literature reveals a plethora of descriptive research of varying quality, major research omissions and elemental relationships neglected, contradictory findings which have been explained and unexplained and a general lack of cumulative research (as well as negligence on the part of the various government and census agencies to take the matter of population redistribution seriously enough) (Goldscheider, 1969).*

The major argument is that "the major population issue of concern in the Asian and Pacific region in the 1990s is not going to be fertility but population movement" (Skeldon, 1992:4) and of course international migration. Hugo (1992) pointed out that the diversity and complexity of population movements between rural and urban areas and their implications for development have not yet been fully understood. There is a need to revise our traditional views about the process of rural-urban migration in the light of new statistical materials (Bose, 1992:21).

1. Migration studies in Nepal

Of the three demographic processes: birth, death, and migration, the latter remains the least understood and researched area in Nepal. But some of Nepal's social, economic, and political problems are intricately woven with both the pattern and magnitude of internal and international migration.

Migration data from both surveys and censuses have been collected in Nepal since the first acceptable modern census of 1952/54. Information on causes and consequences of either internal or international migration at both macro and micro level is severely lacking. Many studies rely on migration data collected from a few villages or a few districts, but they do not capture the totality of the migration situation in Nepal. One attempt has been made in the direction of interpreting regional patterns of migration by using census data (Gurung, 1989). Because of lack of information in various censuses, such a study cannot capture the trends and patterns of all streams of migration.

Migration studies in Nepal rely heavily on census data, surveys and secondary sources of information. Some exceptions are anthropological studies of a small community (McDougal, 1986; MacFarlane, 1976; Dahal, 1983; Fricke, 1986). The National Commission on Population (NCP) in 1984 listed 12 studies that dealt with migration in Nepal. The topics of such studies ranged from political implications of migration (Weiner, 1973) to population mobility before 1961 (Kansakar, 1974). A majority of the studies focused on resettlement projects and conclude that shortage of land and unemployment were the main push factors in the mountains and hills and that land availability and employment were the main pull factors of the *tarai*.

The first attempt to integrate data on inter-regional migration up to 1971 was made by New Era (1981) and was later officially published by NCP (1984). Although by no means analytical for lack of comparable data, it initiated interest in migration research in Nepal. The second comprehensive study was conducted by Conway *et al.* in 1981. That study calculated a crude index of net migration rates between 1961 and 1971 and established relationships between the net migration rates and agricultural income, resettlement projects, investment in irrigation, industry and urbanization. That study also carried out household surveys in two *tarai* districts based on the household listing prepared by the Malaria Eradication Office. Two major origin districts, Syangja and Lamjung, were also identified from the destination districts and subsequently surveyed. The major conclusions were: literacy and age appeared to be important migration determinants and that the decision to migrate out of the hills was influenced more by the migrant's inability to maintain a satisfactory life in the origin than by his knowledge of opportunity in the destination. Social factors such as family and friends in the origin were more important for migration decision making than factors in the destination. Many migrants acquired larger amounts of land in the destination districts of the *tarai* with successive improvements in their household situation. Long distance moves were as prominent as short distance moves. The study primarily focussed on rural-to-rural migration by purposively selecting districts undergoing resettlement projects and with a malaria eradication programme sponsored by the Government. The conclusion should thus be taken cautiously (KC, 1985). That was, however, the first attempt to collect rural-to-rural migration data from both origin and destination.

As of early 1983, the Government conducted a more comprehensive migration survey in 10 *tarai* districts with urban centres and in three towns of the Kathmandu Valley between February and April (Gurung *et al.*, 1983). That study administered a questionnaire interview to 5,651 household heads in ten *tarai* districts and 2,411 household heads in three towns of Kathmandu Valley. The survey report included information on the nature, volume, causes, and consequences of migration. Although that was the first migration survey separately conducted in the country, many of the determinants of migration in both origin and destination were not examined adequately. One of the intentions of the survey was to document adequately the volume of internal and international migrantion, so that the Government could devise policies to regulate and even restrict it. Some of the conclusions of the study interestingly differed from the conclusions of the study by Conway *et al.* in 1981, particularly concerning the importance of pull and push factors. Even though the study sponsored by NCP in 1983 did not include an origin district, it revealed that pull factors in the *tarai* were more important than the push factors in the hills. The study presented information on the magnitude and patterns of rural-to-rural and rural-to-urban migration.

The Central Bureau of Statistics (CBS) published census data in mid-1984. It took a much longer time to process migration data to be suitable for interpretation. CBS did not publish data on rural-to-urban migration. An unpublished printout was later available through the publication of a monograph on *Urbanization in Nepal* by Sharma (1989). While Gurung's monograph on *Regional Patterns of Migration in Nepal* (Gurung, 1989) was based on all available census data dealing with internal and international migration, Sharma's study on urbanization was based on available census data. A parallel study incorporating most migration data from the 1952/54 to the 1981 census, as well as the relevant migration data generated from the 1983 survey of the *tarai* districts, was prepared by KC (1991). A synthesis of all of these studies (Gurung, 1989; Sharma, 1989; and KC, 1991) was incorporated in an ESCAP publication (KC *et al.*, 1991). Two other case studies on in-migration to Kathmandu (Thapa and Tiwari, 1977) and intra-urban movement in Kathmandu (Shrestha *et al.*, 1984) are noteworthy for examining patterns of urban migration.

The Central Bureau of Statistics (CBS) carried out a *Demographic Sample Survey* (DSS, 1986/87) covering an observation period of 12 months from spring 1986 to spring 1987 (CBS, 1987b). That was a multi-stage survey based on a national probability sample of 129 identifiable compact clusters (81 rural and 48 urban) selected from 35 districts (14 from the *tarai*, 18 from the hills, and 3 from the mountains) out of a total of 75 districts. The urban sample was selected from 14 towns out of 23 existing in 1981. Three wards each from 13 towns and 9 wards from Kathmandu resulted in the selection of 48 wards from urban areas. Altogether 8,640 households were selected. The rural sample consisted of 6,126 households and the urban sample consisted of 2,514 households. That survey collected probably the most comprehensive data on rural-to-urban migration in Nepal (CBS, 1988). Unfortunately, the data tabulated neither were analyzed nor presented in a format suitable for analyzing different migration streams by town.

Studies explicitly focussed on analyzing the trends, patterns and implication of rural-to-urban migration in Nepal do not exist. An introductory attempt was made by KC (1994) in a paper for an Expert Group Meeting in Bangkok in November 1992. Census data on rural-to-urban migration before the 1971 census do not exist, primarily because the urban population in the country before then was only 322,000. If Kathmandu Valley as a whole were to be considered urban or semi-urban, some indication of rural-to-urban migration could be discernible.

The 1952/54 census figure of 238,257 persons residing in the 10 urban centres in the country is only half of the total urban population of Kathmandu and Bhaktapur in 1991. From a mere 2.9 per cent urban population in 10 urban centres in 1952/54, urbanization increased to 9.1 per cent urban population in 33 urban centres in 1991. There has been a steady increase in the volume of rural-to-urban migration since 1971. But the level of information varies and makes it difficult to trace trends of rural-to-urban migration in Nepal.

2. Effect of rural-to-urban migration

Though Nepal has the lowest rate of urbanization among the South Asian Association for Regional Cooperation (SAARC) countries, except for Bhutan, the number of people living in urban centres has almost quadrupled, growing from 0.46 million to 1.7 million in the 30 years since 1961. Much of this growth is attributed to high annual growth rates in large *tarai* and Kathmandu Valley towns. The proportion of population living in urban centres grew from 4 per cent in 1961 to 9.2 per cent in 1991. Thirty years ago, one person in 25 lived in an urban area. In 1991, nearly one person in 10 was an urban dweller.

The enormous pressure for shelter and services has rapidly frayed the urban fabric, especially in the Kathmandu Valley. Today, the Kathmandu Valley municipalities (Kathmandu, Lalitpur and Bhaktapur) are facing several challenges to maintain their infrastructure, employment and sanitation properly. Proliferation of slums is rapid outside and inside the ring-road; public transport is overcrowded and overused, as are roads, public latrines and public spots; the water supply system is fragile, allowing sewerage to seep into drinking water and spreading infectious diseases (KC, 1994: 42). Around 60 per cent of the water distributed in Kathmandu is lost through leakage and polluted water enters the distribution system. Less than 50 per cent of the population living in urban areas have drainage, solid waste disposal and sanitation facilities (KC, *et al.*, 1991: 203-204). Water supply is not adequate and not safe. Water supply in most of the towns is for a few hours per day and it varies with the season.

3. The effect on labour force and income

In the last decade, the capital city has increasingly become the major employment centre, especially for teenagers and youths working in carpet and garment industries, restaurants, hotels, retail shops, trekking centres and bus terminals. A survey conducted by CWIN (1993) on the situation and problems of child labour in carpet industries in Kathmandu estimated that about 300,000 total labourers were involved in these industries, of which almost one half were child labourers (below 16 years of age). Of the child labourers, 97 per cent were reported to be migrants. Another study conducted by CWIN (1992, 1993; Joshi, 1985) on child labour in Nepal revealed that out of the 34 ragpickers interviewed in different places in Kathmandu, 20 were migrants and 14 were non-migrants. The average daily earnings were reported to be approximately equal to US$ 0.5. There were 250-300 street children in Kathmandu who came from the immediate countryside – Ramechhap, Trisuli, Dolakha, Sindhupalchowk and Dhading. About 60 per cent of the country's population falls below the poverty line, and high levels of unemployment and underemployment persist in rural areas. There is a gradual shifting of the rural poor to urban areas.

4. Proliferation of slum areas

In 1985, the number of squatters was 2,140 in 7 squatter settlements; the number of squatters rose to 3,700 in 24 settlements in 1988, in addition to 1,600 homeless people in public places (Yami and Mikesell, 1990). The number of slums and squatter settlements has been increasing in urban areas of Nepal. It is believed that there are about 39 squatter settlements in Kathmandu with about 6,000 people living along the Bagmati and Bisnumati rivers (KC, 1994: 42). Almost 67 per cent of squatters were reported to be migrants from Nuwakot, Kavrepalanchowk, Ramechhap, Makawanpur, Bhaktapur, Sindhupalchok, Okhaldhunga and other rural areas (CEDA,1989). A study conducted by Budathoki (1992) revealed that 54.7 per cent of the total squatters residing in various settlements were from outside the Kathmandu Valley, 28.5 per cent were from within Kathmandu city proper, 15.1 per cent were from the Kathmandu city periphery and the rest were from outside the country. Of a total of 179 households surveyed by Budhathoki (1992), about 9 per cent had been residing in these settlements before 1970, the proportion increased to 26 per cent during 1970s, and reached 64 per cent during the 1980s.

Biratnagar, the second largest city both in terms of population size and industrial development, has also experienced squatter problems over the years. Eight squatter settlements were reported in Biratnagar, with nearly unlivable housing conditions and lack of electricity, piped water and sanitation. The main urban problem in Biratnagar is associated with residential problems – growth of settlements of low income people, especially squatters. Because of the rich hinterland, a heavy exodus from the hills and from the Indian state of Bihar has led to a high level of urbanization in Biratnagar.

Pokhara, the second most important city in the hills, is growing rapidly. Among the 36 urban centres, it had the highest annual population growth rate (7.41 per cent) during the last decade. The development and extension of squatter settlements in Pokhara is associated with the development of new institutions such as government offices, a hospital, educational institutions, airports and labour-oriented working places. Unlike the nature of development of squatter settlements in Kathmandu city, only barren land has been occupied by the squatters in Pokhara. In Kathmandu, squatter settlements are mainly located along the river banks and are likely to be flooded in the rainy reason.

Of the 150 squatter households surveyed by Kansakar (1988) in Pokhara, 46 per cent were from rural areas of Syangja, Parbat, Mustang, Kavre etc., 34 per cent were from the rural areas of Kaski district and 24 per cent were from within the core areas of Pokhara city.

The lack of sewerage facilities, piped water, and private and public latrines in these settlements has a serious impact on not only the squatters' health and economy but also on the city inhabitants surrounded by them.

5. Impact on status of women

Migration from rural to urban areas by gender is changing over time. For instance, there were 11 urban centres with sex ratios of 115-130, 14 with ratios of 105-115, 4 with ratios of 100-105 and 1 with a sex ratio less than 100 in 1981. In 1991, 10 urban centres had shifted from sex ratios of 115-130 to 105-115. The preponderance of males in urban areas reflects an early stage of urbanization in Nepal in which movement of people from rural to urban areas is mostly male.

A survey conducted by CWIN (1992) on child labourers in Nepal indicated that out of a total of child labourers of about 150,000, females constituted 38 per cent. The highest number of workers were from the Tamang community (47 per cent). Female headed household are also increasing in squatter settlements (Shrestha and Kaltenborn Lunde, 1990).

Except for a few women involved in white collar jobs, the majority of migrant rural women works as labourers in the non-agricultural sector. Wool-spinning, carpet-weaving and knitting are the major employment sectors for rural migrant women in urban areas, especially in the Kathmandu Valley. Textiles is another sector with a high concentration of female workers. In both sectors women are paid low wages. These women face insecurity, sex abuse and adverse effects on their health in the long term. According to a UNICEF (1992) report, women's employment, particularly of migrant women, is inversely related to mechanization and size of investment in the industrial establishment.

Female education and female enrolment levels are still poor in the country. In urban areas gross enrolment levels for boys and girls in primary school are 101 and 81 per cent, respectively. In the 179 households surveyed by Budathoki (1992), he found that 21 per cent of the people were literate. The lack of education is not only a question of the low social status these people have, it is also question of money. No studies exist on their well-being in urban areas relative to their place of origin.

D. RANGE OF AVAILABLE DATA

1. Censuses

The first modern census, taken in 1952/54, provides information on inter-regional migration by mountain/hills, *tarai*, and Kathmandu Valley; in-migration from other regions to Kathmandu Valley; total net migration by region; and urban population of each of the 10 designated urban localities. Data on rural-to-urban migration do not exist in this census. The 1961 census also did not provide data on rural-to-urban migration. All of the information contained in the 1952/54 census are also available in 1961. In addition, the urban population of 16 localities and by broad region is available.

The 1971 census recorded for the first time data on urban migrants. Two levels of data are available: (1) inter-regional and urban migrants by mountain/hills, Kathmandu Valley and *tarai* and (2) the volume of urban migrants from different geographical regions to each of the 16 urban localities existing in 1971.

Relatively comparable data for 1971, 1981, and 1991 on population, the proportion in urban and rural areas and growth rates are available. The 1981 census did not publish data on urban migrants but an unpublished printout is available from the Central Bureau of Statistics. The data contained intra- and inter-regional migration flows by 15 census regions with net in- and out-migration for each region and by mountains, hills and *tarai*. The volume of intra- and inter-regional migration by duration of stay, reason for migration, broad age group and duration of stay by 5-year interval by sex and by type of migration are also available.

The 1991 census includes an age-sex distribution of lifetime migrants to rural areas; an age-sex distribution of lifetime migrants to urban areas; and distributions of population by 5-year age group and sex for rural-to-rural, rural-to-urban, urban-to-rural, and urban-to-urban migrants.

In addition to the census information on migration in general and urban migration in particular, the following data are available regarding international migration.

(a) Volume and source of absentee population abroad by major geographical region is available from the 1961 census. Absentee population is also recorded by age, sex and reason for being abroad in 1981. Information on the volume of emigration is available only from the 1952/54 and 1961 censuses and the 1986/87 Demographic Sample Survey.

(b) Data on foreign born population by country of birth and the population of foreign citizens living in Nepal are available from the censuses 1961 to 1991.

(c) Reasons for internal and international migration by sex are available from the 1981 census.

2. Surveys

In 1983, National Commission on Population conducted a household survey in 10 *tarai* districts with 11 urban centres and in three towns of Kathmandu Valley. Some pertinent information on urban migration can be utilized to give a picture of the extent of urban migration within the valley and in the *tarai* urban areas. The following information is available from that survey.

(a) Characteristics of footloose migrants in 22 urban localities (11 designated and 11 undesignated) as well as the nature and characteristics of commuter migrants from both sides of the Nepal-India border. The total sample size of footloose migrants was 2,000 and that of commuter migrants was 2,448. Footloose migrants were purposively selected on the basis of representing various occupational categories. Commuter migrants were selected randomly at every three-hour interval for 7 days.

(b) Out of a total household sample of 5,621 persons who responded to the questions, 61.5 per cent constituted non- and long-term migrants, 31.5 per cent were in-migrants and 6.9 per cent immigrants. Of all these three categories, 39.6 per cent lived in urban areas and 60.4 per cent in rural areas. Among the in-migrant population, 42.0 per cent lived in urban areas.

(c) Characteristics of in-migrants in the 1983 survey were reported by previous place of residence other than the place of birth for both rural and urban migrants; duration of stay of in-migrants at the current place by rural/urban residence; age and sex structure of population in sample households in *tarai* by rural/urban residence and by migration status; previous occupation of rural and urban migrants and present source of income by duration of stay; and citizenship by rural/urban residence.

3. Demographic sample survey of 1986/87

This survey is probably the best source for examining all streams of migration in Nepal. From a total national sample of 8,640 households, the urban sample consisted of 2,514 households, with 1,200 households in urban hills and 1,314 in the urban *tarai*. The total sample consisted of 35,101 rural and 14,412 urban residents. Some relevant tables that can be used for this study are as follows:

(a) Lifetime migrants as per cent of native born population by area and sex;

(b) Percentage distribution of lifetime migrants in rural/urban areas by four migration streams;

(c) Duration of residence of migrants in urban areas;

(d) Age- and sex-specific migration rates for urban areas; and

(e) Marital status of rural/urban migrants 10 years and above and migration rate.

(f) Other information on rural/urban migrants by literacy level, migration status, occupation, reasons for migration, 10-year age group and sex in both rural and urban areas is also available. Information, similar to that for urban and rural internal migrants, is also available for immigrants. Also tabulated by the DSS were distributions of migrants by age at first move, by rural/urban residence and by duration of stay in rural and urban areas.

4. Estimation of net urban migration

Various population projections have been made based on 1981 census data and with different assumptions for fertility and mortality in succeeding years (KC., *et al.*, 1991: 157-160). Population projections for five groups of urban areas were also carried out in 1991. Those projections still seem valid considering that the estimate of the total fertility rate equalled 5.63 and the life expectancy equalled 56.1 years for urban areas in 1981. That projection extended up to 2011.

The estimation of net migration for successive periods was carried out based on the expectation of life at birth by sex using Coale-Demeny regional model life tables (United Nations, 1967:81). For each level, ten-year survivorship probabilities were obtained. The population projected to 1981 based on these probabilities was obtained for each age-sex group and compared with the enumerated population of 1981. The number of in-migrants and out-migrants was determined on the basis of positive or negative values by subtracting the projected population from the enumerated population. For the age groups 0-4 and 5-9 years, the child-woman ratio method was used (Shryock and Seigel, 1980:632). One and one half times the number of migrants estimated for 1971-1981 was used for estimating net-migration for the succeeding period. This estimate can be used to supplement urban migration data from the 1991 census. Likewise, projections of the labour force by economically active and inactive, agricultural and non-agricultural population, and rural and urban areas were also made and can be used effectively in this study (KC., *et al*., 1991: 161). A new projection of net migration to urban areas is also attempted in the present study, based on the estimation of various demographic parameters according to the 1981 and 1991 censuses.

By combining relevant information from the censuses of 1971, 1981 and 1991 on urban migrants, supplemented by data obtained from the 1983 migration survey in the *tarai* and the Kathmandu Valley from the 1986/87 demographic sample survey and from various case studies, a clear picture of trends, pattern and implications of urban migration emerges within the general framework of data on inter-regional migration, immigration and emigration, by rural and urban areas in Nepal.

5. Status of data available for the study of rural-urban migration in Nepal

a. In the 1981 census, raw data pertaining to the study of migration were collected and entered in the computer during data processing, but the tables related to rural-urban migration were not processed (KC, *et al*., 1991). However, unpublished data on rural-to-urban migrants are available for this study. The age-sex distribution of these migrants can be used to obtain the total volume of the migrants remaining in urban areas in 1991 by the survivorship ratio method.

b. Demographic Sample Survey 1986/87. The DSS was designed particularly for the study of migration status and mortality in Nepal in 1986/87. Four streams of migrants, rural-to-rural, rural-to-urban, urban-to-urban, and urban-to-rural, were identified in the survey. Tables reflecting important social, economic and demographic parameters are also available from the DSS.

c. *1991 Census*. The 1991 census is the latest census conducted in Nepal. The questionnaire collected information on (i) place of birth by rural/urban; (ii) place of enumeration; and (iii) the place of settlement one year ago by rural/urban if one's district of settlement was different from the present district of enumeration. Two main tables on lifetime migrants to rural and to urban areas by their social, economic and demographic characteristics can also be generated. Net migration to each urban area during the intercensal period can be obtained by the natural growth rate method.

E. DATA SOURCES AND METHODOLOGY

1. Definition of migrants and quality of migration data

The 1952/54 census defined migrants as being absent from home for more than six months but did not include a question on place of birth. That census did not record rural-to-urban migration volume but included 10 urban centres with a combined population of 238,275 persons. The three towns of Kathmandu Valley – Kathmandu, Lalitpur, and Bhaktapur – had an urban population of 181,082, or 76 per cent of the total urban population. As two other towns in the valley were also classified as urban at that time, the total urban population of the valley was 83 per cent. The total absentee population, absent for more than 6 months, was 216,853 persons. The internal lifetime migrants constituted only 8.64 per cent and almost 92 per cent were abroad. Kathmandu Valley had a total population of 410,995 persons, out of which 48 per cent was in three towns. Net urban migration in 1952/54 was 6,218 persons and only 1,460 persons went out of the valley. This net migration constituted 6 per cent of the population of Kathmandu City because it was unlikely that people had migrated to other towns of the valley rather than the capital city itself.

The 1961 census provided data on place of birth, absentee population, foreign born population and foreign citizens at the district and regional levels. The 1971 census did not include questions on duration of residence at the place of enumeration and excluded the question on absentee population. It, however, tabulated data on birth place at both district and regional levels as well as the foreign born and foreign citizen population at the district level. Rural-to-urban migration data were available from regions to individual urban centres.

The 1981 census defined lifetime migrants as those enumerated in a place different from the place of birth and recorded absentee population, foreign born population, and foreign citizens. Regional level data were provided on place of birth, duration of stay, absentee population, and reasons for migration for both internal and international migration. The CBS did not publish data on rural-urban migration. An unpublished printout on inter-regional urban migrants is, however, available (Sharma, 1989; KC *et al.*, 1991).

2. Problem of comparability over time and space

Generating migration statistics in Nepal has been more difficult than in other countries. A problem in analyzing data on either migration or other components of population dynamics in Nepal is the frequent changes in the boundaries of urban, regional and census regions. In the 1952/54 census the eastern half of the country was enumerated in 1952 and the western half in 1954. The census regions were:

1. Eastern Hill,
2. Eastern Inner *Tarai,*
3. Eastern *Tarai,*
4. Kathmandu Valley,
5. Western Hill,
6. Central Inner *Tarai,*
7. Western Inner *Tarai,*
8. Western T*arai*, and
9. Far-Western *Tarai.*

The 1952/54 and the 1961 censuses both had 55 districts. In 1961, one more region was created by splitting regions into western hill and far western hill. Both these censuses, however, included the natural divisions of hills, Kathmandu Valley, inner *tarai* and the *tarai.* Between these two censuses, however, the number of urban centres grew from 10 to 16, with an additional population of about 100,000 persons, in less than ten years.

In the 1971 census, Nepal was divided into 75 districts and 10 census regions. Neither the district boundaries nor the regional boundaries were comparable with the previous two censuses. The name *tarai* was changed into plains. A separate mountain region was created out of the previous hill region. One western inner *tarai* district, Dang, was included in the far-western plains and Chitwan district of central inner *tarai* was included in the central plains. Among the inner *tarai* districts, Surkhet was included in the far-western hills; Makwanpur and Sindhuli in the central hills; and Udayapur in the eastern hills. Kathmandu Valley was also included within the central hills. The 10 census regions of 1971 were divided into 12 regions in 1972. The three north-south elevation zones, mountains, hills and plains, were further sub-divided into four east-west sub-regions, the eastern, central, western, and far-western.

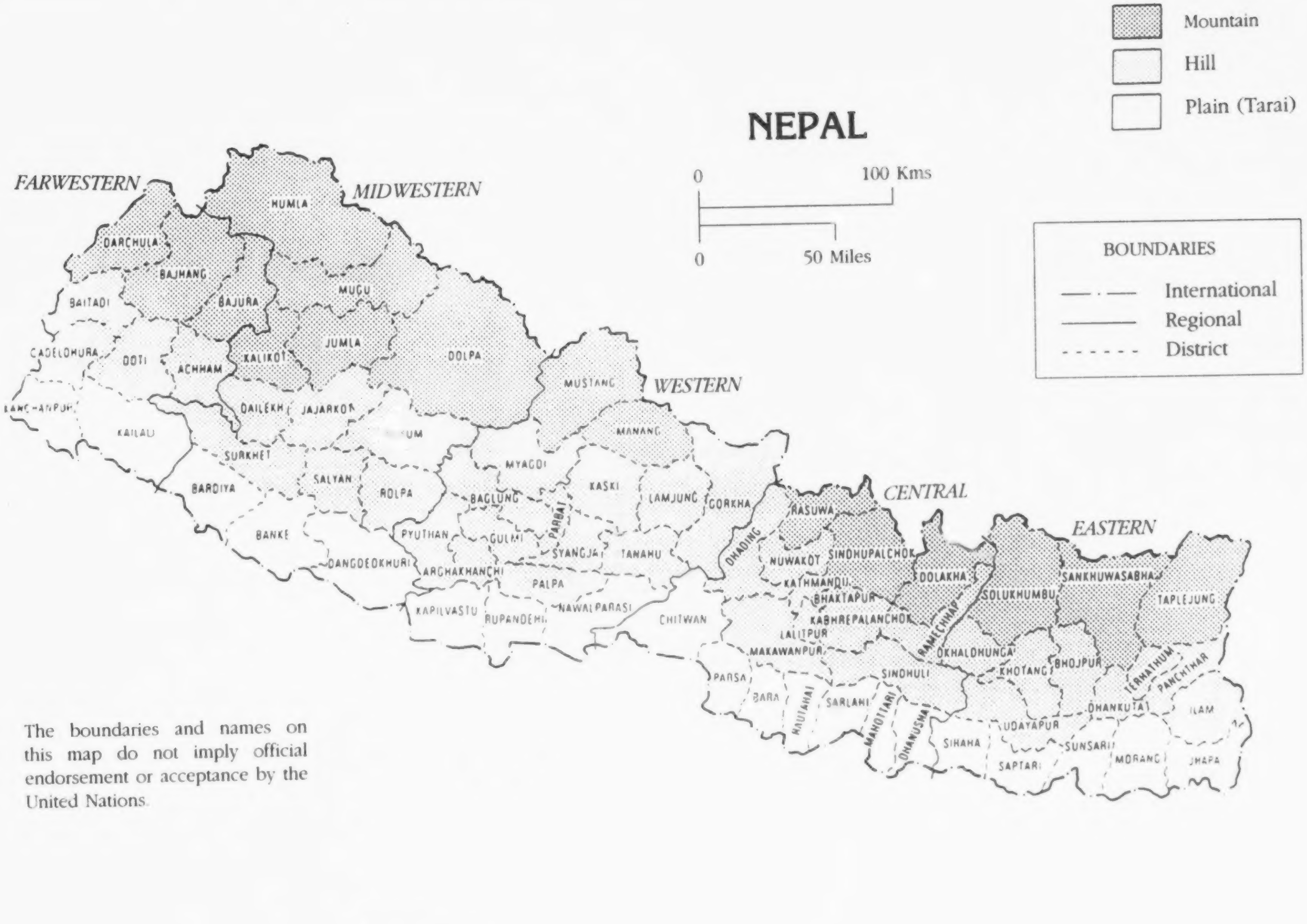
The 1981 census retained 75 districts but district boundary changes in 1975 make it difficult to compare district level data between the two censuses. Moreover, in 1981, the far-western region of 1971 was divided into mid-western and far-western regions and the district of Dolpa was moved from the western region in 1971 to the mid-western region in 1981. The term plain was recoined as the *tarai*. Thus, the 1981 census had 15 regions consisting of three elevation zones and five development regions (map 1). Except when data for Kathmandu Valley have been inserted within the central hills, it is possible to treat this region separately. Migration and other data for the inner *tarai* region also can be analyzed separately.

F. POPULATION GROWTH, DISTRIBUTION, AND DENSITY

The population dynamics of Nepal are characterized by a continuing high birth rate (41.6 per thousand), declining death rate (13.3 per thousand), high infant mortality rate (97.5 per thousand live births), high total fertility rate (5.6), high dependency ratio (87.1), and low life expectancy (54.3 years). Nepal has a very young population (43.1 per cent below 14 years of age), which will be of reproductive age in a few years' time (CBS, 1994a).

The earliest census of Nepal (1911) recorded a total population of 5,638,749 (table 1). The total population figures of the 1920, 1930 and 1941 censuses are neither reliable nor complete. Between 1941 and 1952/54, Nepal's population grew at the rate of 2.28 per cent annually.

Map 1. Geographical regions and districts of Nepal


NEPAL
0
100 Kms
0
50 Miles
Mountain
Hill
Plain (Tarai)
BOUNDARIES
International
Regional
District
FARWESTERN
MIDWESTERN
WESTERN
CENTRAL
EASTERN
DARCHULA
BAJHANG
BAITADI
BAJURA
HUMLA
MUGU
JUMLA
KALIKOT
DOLPA
CADELDHURA
DOTI
ACHHAM
KANC-ANPUR
KAILALI
DAILEKH
JAJARKOT
UM
SURKHET
SALYAN
ROLPA
BARDIYA
BANKE
DANGDEOKHURI
PYUTHAN
MUSTANG
MANANG
MYAGDI
BAGLUNG
KASKI
LAMJUNG
GORKHA
PARBAT
GULMI
SYANGJA
TANAHU
ARGHAKHANCHI
PALPA
KAPILVASTU
RUPANDEHI
NAWALPARASI
CHITWAN
RASUWA
DHADING
NUWAKOT
SINDHUPALCHOK
KATHMANDU
BHAKTAPUR
KABHREPALANCHOK
LALITPUR
MAKAWANPUR
DOLAKHA
RAMECHHAP
SOLUKHUMBU
SANKHUWASABHA
TAPLEJUNG
OKHALDHUNGA
KHOTANG
BHOJPUR
TERHATHUM
PANCHTHAR
ILAM
JHAPA
PARSA
BARA
RAUTAHAT
SARLAHI
MAHOTTARI
DHANUSHA
SINDHULI
UDAYAPUR
DHANKUTA
SIRAHA
SAPTARI
SUNSARI
MORANG

The boundaries and names on this map do not imply official endorsement or acceptance by the United Nations.

Table 1. Population size and growth in Nepal, 1911-1991

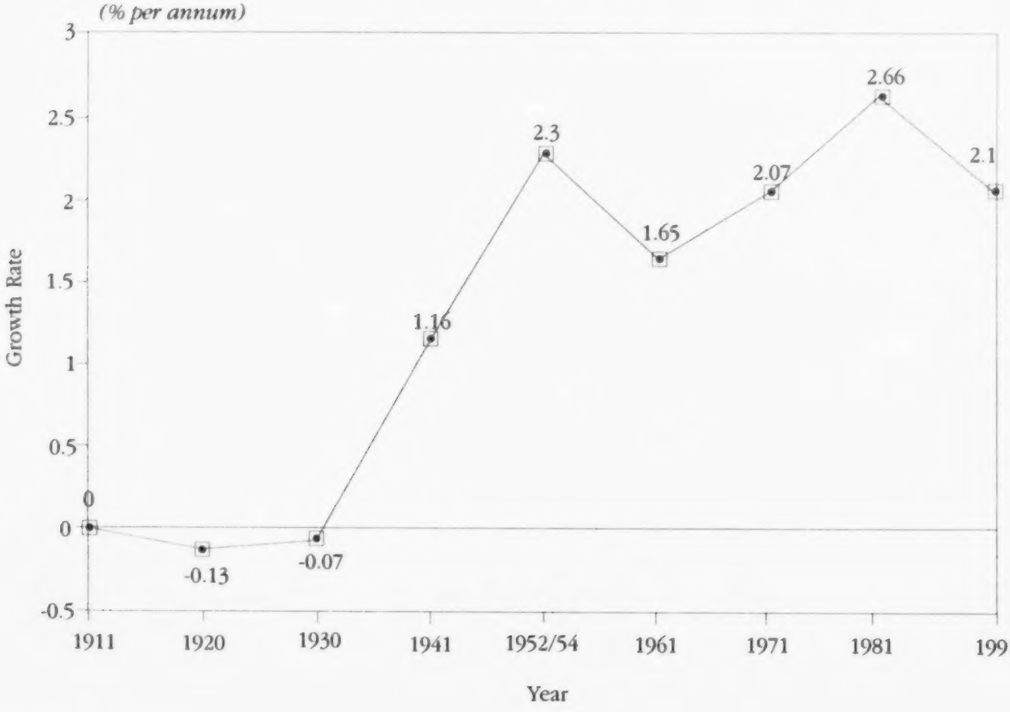
Census year		*Total population*	*Absolute change*	*Growth rate*
1911	(28th May)	5 638 749		
1920	(31st August)	5 573 788	-64 961	-0.13
1930	(Not Available)	5 532 574	-41 214	-0.07
1941	(1st March)	6 283 649	751 075	1.16
1952/54	(28th May)	8 256 625	1 972 976	2.28
1961	(22nd June)	9 412 996	1 156 371	1.64
1971	(22nd June)	11 555 983	2 142 987	2.05
1981	(22nd June)	15 022 839	3 466 856	2.62
1991	(22nd June)	18 491 097	3 468 258	2.08

Source: Department of Statistics (1957, table 2); CBS (1967), vol. III, Part 2, table 2; CBS (1975), vol. I, table 2; CBS (1984), vol. II, table 4; CBS (1993a), vol. I, Part ii, table 8.

The annual rate of growth decreased to 1.64 per cent between 1952/54 and 1961 and then increased again to 2.05 per cent between 1961 and 1971. Between 1971 and 1981 the population of Nepal registered an annual growth rate of 2.62 per cent, which decreased to 2.08 per cent between 1981 and 1991 (figure 1). Such a scenario reveals that Nepal's population doubled in a period of 60 years between 1911 and 1971. With the present annual growth rate, the 1991 population would double in 32 years.

Between 1971 and 1981, the *tarai* had an annual growth rate of 4.07 per cent while the mountains/hills grew by 1.42 per cent annually (table 2). Between 1981 and 1991, the mountains/

Figure 1. Population growth rates in Nepal, 1911-1991



Source: Table 1.

Table 2. Population and growth rate by geographic region, 1952/54-1991

Region	*Total population*					*Annual growth rate*				
	1952/54	*1961*	*1971•*	*1981*	*1991*	*1952/54 -1961*	*1961- 1971*	*1971- 1981*	*1981- 1991*	*1952/54 -1991*
Mountain/hills	4 945 875	5 531 307	6 027 337	6 946 549	7 772 117	1.40	0.86	1.42	1.12	1.19
Kath. Valley	410 995	459 990	607 377	766 345	1 105 379	1.41	2.78	2.32	3.66	2.60
Inner *tarai*	493 936	518 685	908 884	1 279 081	1 694 424	0.61	5.61	3.42	2.81	3.24
Tarai	2 405 816	2 903 014	4 012 385	6 030 864	7 919 177	2.35	3.24	4.07	2.72	3.14
Nepal	8 256 625	9 412 996	11 555 983	15 022 839	18 491 097	1.64	2.05	2.62	2.08	2.12

Source: K.C., et al. (1991), table 1.4; CBS (1993a), vol. I, Part ii, table 8.

• Adjusted according to district boundary change in 1975.

hills region had an annual growth rate of 1.12 per cent. The growth rate for the same period was 3.66 per cent for Kathmandu Valley, 2.81 per cent for the Inner *tarai*, and 2.72 per cent for the *tarai*.

The share of population in the *tarai* increased from 35.2 per cent in 1952/54 to 46.7 per cent in 1991 (table 3). During the same period, the share of highland population decreased from 64.8 to 53.3 per cent. This has increased population density in the *tarai*.

The mountain region as a whole had only 28 persons per square kilometre in 1991 (table 4). The hill and the *tarai* regions had 137 and 254 persons per square kilometre. The mountains/hills experienced an 85.0 per cent increase in density during the period 1952/54-1991 while the *tarai* experienced a 199.0 per cent increase. The Kathmandu Valley had 772 more persons per square kilometre in 1991 than in 1952/54.

Population density in Nepal increased from 56 in 1952/54 and 64 in 1961 to 79 in 1971, 102 in 1981, and 126 persons per square kilometre in 1991 (table 4, figure 2).

Nepal had a total population of 18,491,097 in 1991, with an area of 147,181 square kilometres. The distribution of population varies with topography. The mountain region of Nepal has an area of 51,817 square kilometres or 35.2 per cent of the total. It, however, contained only 7.8 per cent of the total population (figure 3). The hill region, with 41.7 per cent of the area, had 45.5 per cent of the total population. The *tarai* has 23.1 per cent of the area but had 46.7 per cent of the total population. Kathmandu Valley in the hill region has only 0.6 per cent of the total area but contained 6.5 per cent of the total population.

G. URBANIZATION

Nepal's level of urbanization is very low by Asian standards. In the 1991 census, Nepal's urban population constituted 9.2 per cent of the total population. This is much lower than the level of urbanization in India (26 per cent). Bangladesh (17 per cent), Maldives (31 per cent), Pakistan (33 per cent), and Sri Lanka (22 per cent) (ESCAP, 1994b).

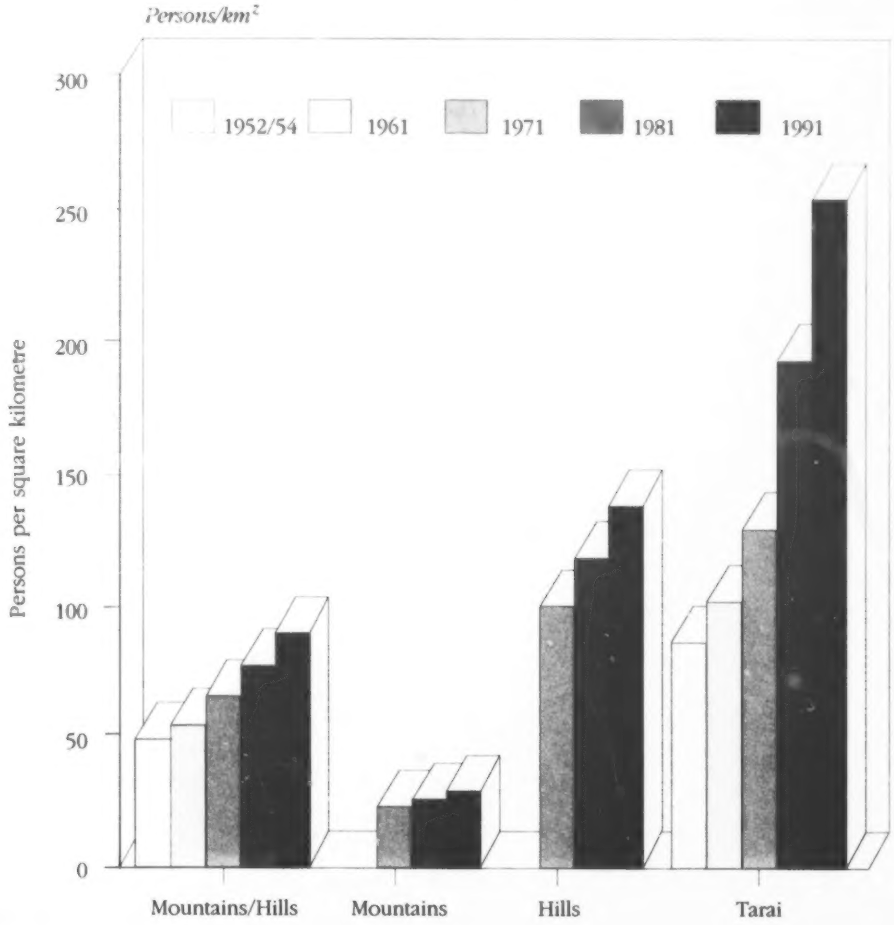
Data on urbanization have been recorded since the 1952/54 census. That census did not define an urban area either in terms of population size or other criteria but included 10

Table 3. Distribution of population by geographic regions, 1952/54-1991

Census years	*Total population*	*Mountains/Hills*	*Mountains*	*Hills*	*Tarai*
1952/54	8 256 625	5 349 988			2 906 637
1961	9 412 996	5 991 297			3 421 699
1971	11 555 983	7 173 503	1 164 514	6 008 989	4 382 480
1981	15 022 839	8 466 011	1 302 896	7 163 115	6 556 828
1991	18 491 097	9 863 019	1 443 130	8 419 889	8 628 078
		Percentage distribution			
1952/54	100.00	64.80			35.20
1961	100.00	63.60			36.40
1971	100.00	62.10	10.10	52.00	37.90
1981	100.00	56.40	8.70	47.70	43.60
1991	100.00	53.30	7.80	45.50	46.70

Source: Table 2.

Figure 2. Population density by geographical regions, Nepal, 1952/54-1991



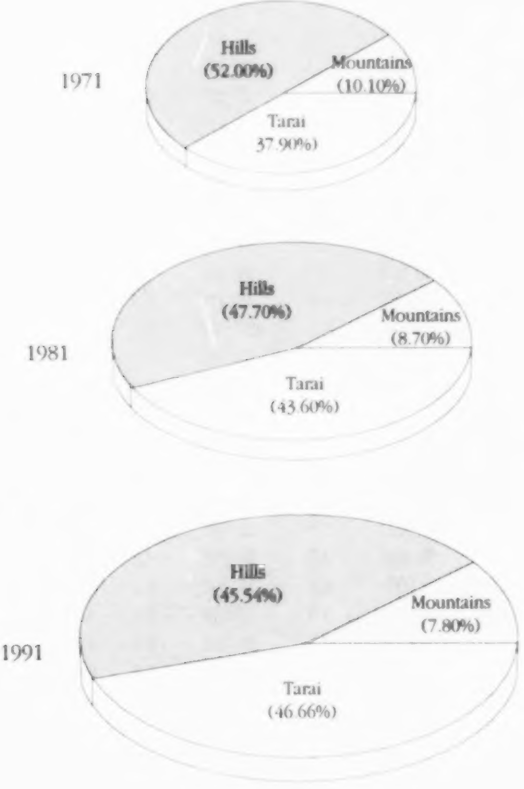
Source: Table 4.

Table 4. Population density by geographic regions, 1952/54-1991

Region	*1952/54*	*1961*	*1971*	*1981*	*1991*
Mountains/Hills	47	53	64	75	87
Mountains			22	25	28
Hills			99	117	137
Tarai	85	101	128	193	254
Nepal	56	64	79	102	126

Source: CBS (1987a:15); CBS (1993a), vol. I, Part i, table 1.

Figure 3. Population distribution by ecological zones, Nepal, 1971, 1981, and 1991



urban localities with a total population of 238,275 persons, or 2.9 per cent of the total population. The 1961 census defined urban areas as having a minimum population of 5,000 and included 16 such localities with a total population of 336,222, or 3.6 per cent of the total population (table 5). That census defined urban areas on the basis of the location of schools, colleges, government offices, legal courts, and marketing facilities (CBS, 1987a:179). The nomenclature of designated municipality was changed to Town Panchayat with the introduction of the Panchayat System in 1961. The Town Panchayat Act of 1962 defined a Town Panchayat with a population size not less than 10,000. The 1971 census included 16 Town Panchayats with a population of 461,938, or 4.0 per cent of the total population (map 2).

In the 1971 census, the Government declassified five previous urban centres and designated five new ones. The minimum population size for a Town Panchayat was reduced to 9,000 in 1976. The 1981 census recorded an urban population of 956,721, or 6.4 per cent of the total population, and the number of Town Panchayat increased to 23 by incorporating 7 new localities (map 3). The total population of 33 towns in 1991 was 1,695,719 (map 4). Urban population growth in Nepal was conditioned by including a large portion of rural area within the urban areas and by designating more urban centres. As a result, most urban areas in Nepal are rural in character.

The urban population growth rate between 1981 and 1991 was 4.37 per cent annually. The growth of urban population in the *tarai* and Inner *tarai* between 1971 and 1981 was mainly because of increase in the number of towns. By 1991, the *tarai* and Inner *tarai* had a total of 22 out of 33 towns. Since three more towns were added in 1992, there are now 12 towns in the Hills and 24 in the *tarai* and Inner *tarai*. The *tarai* and Inner *tarai* now have over 60 per cent of the total urban population.

H. VOLUME AND PATTERN OF INTERNAL MIGRATION, 1952/54-1991

1. Lifetime migration

Nepal has been experiencing an increasing volume of internal migration since the control of endemic malaria in the *tarai* and Inner *tarai* areas in the early nineteen-fifties. The first modern census of Nepal, taken in 1952 and 1954, recorded 216,853 persons or 2.6 per cent of the total population as being absent from home for more than 6 months (table 6).

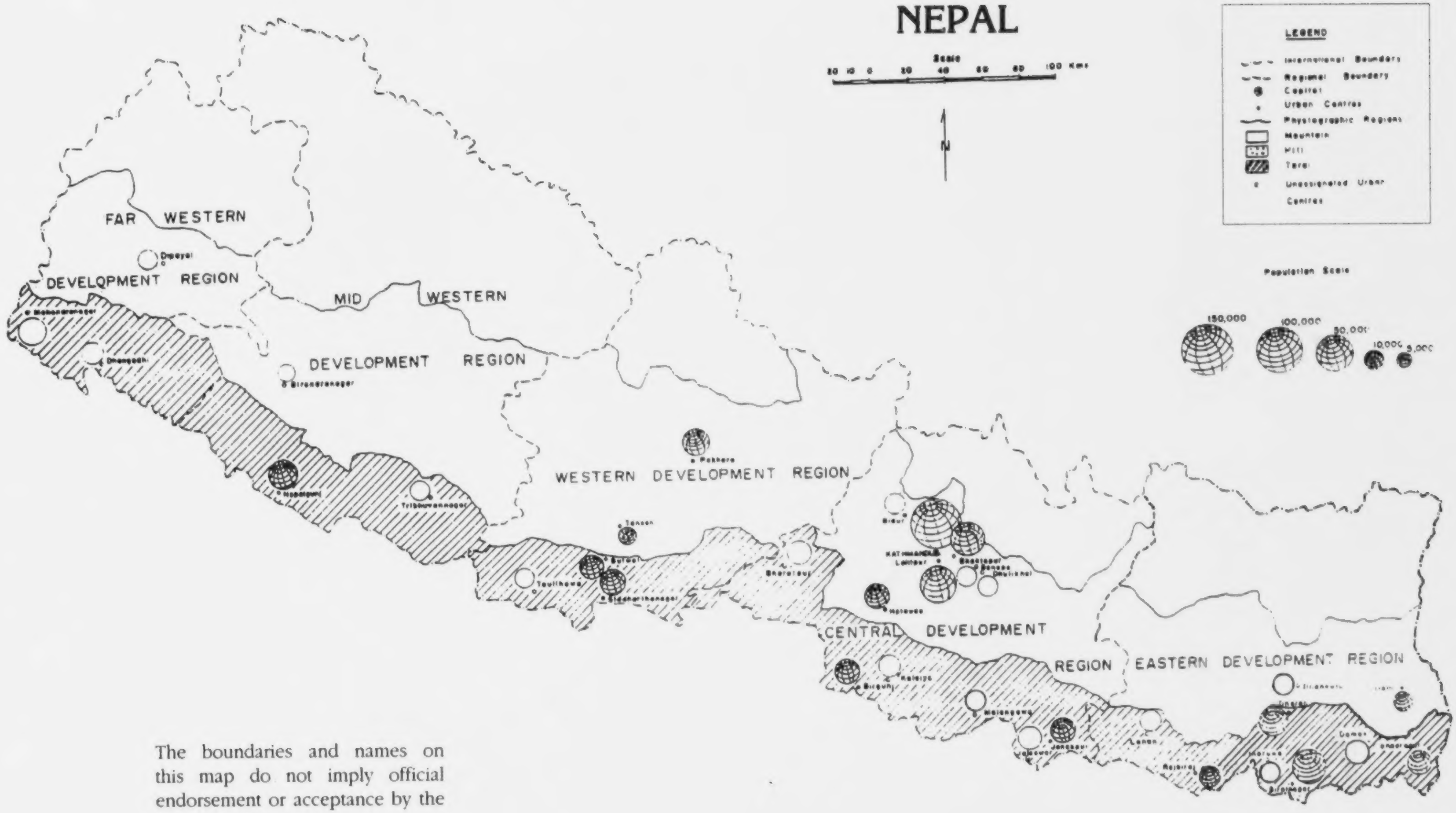
Out of this absentee population, 18,733 or 8.6 per cent resided within the country. The 1961 census recorded 422,402 persons as lifetime migrants and 386,424 as absentee population. Among the absentee population, only 15.1 per cent were residing within the country.

Table 5. Urban population and distribution in Nepal, 1952/54-1991

	1952/54		*1961*		*1971*		*1981*		*1991*		*Growth rate*	
Urban centres	*Population*	*%*	*Population*	*%*	*Population*	*%*	*Population*	*%*	*Population*	*%*	*1971-1981*	*1981-1991*
Kath. Valley	196 777	82.6	218 092	64.9	249 563	39.0	363 507	33.2	598 528	35.3	3.76	4.99
Kirtipur	7 038	3.0	5 764	1.7								
Thimi	8 657	3.6	9 719	2.9								
1. Bhaktapur	32 320	13.6	33 877	10.1	40 112	6.3	48 472	4.4	61 405	3.6	1.89	2.37
2. Kathmandu	106 579	44.7	121 019	36.0	150 402	23.5	235 160	21.5	421 258	24.8	4.47	5.83
3. Lalitpur	42 183	17.7	47 713	14.2	59 049	9.2	79 875	7.3	115 865	6.8	3.02	3.72
Hill towns	17 255		16 237	4.8	99 984	12.1	175 297	16.0	269 367	15.9	5.61	4.30
4. Banepa	(4 784)		5 688	1.7	(7 636)	1.2	(10 446)	1.0	12 537	0.7	3.13	1.82
5. Bidur					(10 615)	1.7	(13 369)	1.2	18 694	1.1	2.31	3.35
6. Dhankuta	(2 097)				(9 150)	1.4	13 836	1.3	17 073	1.0	4.14	2.10
7. Dhulikhel	(280)				(8 442)	1.3	(9 761)	0.9	9 812	0.6	1.45	0.05
8. Dipayal	(985)				(7 213)	1.1	(9 694)	0.9	12 360	0.7	2.96	2.43
9. Ilam	(920)				7 299	1.1	9 773	0.9	13 197	0.8	2.92	3.00
10. Pokhara	(3 295)		5 413	1.6	20 611	3.2	46 642	4.3	95 286	5.6	8.17	7.14
11. Tansen	(4 705)		5 136	1.5	6 434	1.0	13 125	1.2	13 599	0.8	7.13	0.35
12. Birendranagar					6 390	1.0	13 859	1.3	22 973	1.4	7.74	5.05
13. Hetauda	(189)				16 194	2.5	34 792	3.2	53.836	3.2	7.65	4.37
Tarai	68 766	17.4	101 893	30.3	290 120	41.6	556 279	50.8	827 824	48.8	6.51	3.98
14. Bharatpur	(91)				(15 108)	2.4	27 602	2.5	54 670	3.2	6.03	6.83
15. Tribhuvannagar	(859)				(8 680)	1.4	20 608	1.9	29 050	1.7	8.65	3.43
16. Bhadrapur	(1 478)				7 499	1.2	9 761	0.9	15 210	0.9	2.64	4.44
17. Biratnagar	8 060	3.4	35 355	10.5	45 100	7.1	93 544	8.5	129 388	7.6	7.30	3.24
18. Birgunj	10 037	4.2	10 769	3.2	12 999	2.0	43 642	4.0	69 005	4.1	12.11	4.58
19. Butwal	(2 597)				12 815	2.0	22 583	2.1	44 272	2.6	5.67	6.73
20. Damak					(13 993)	2.2	(20 285)	1.9	41 321	2.4	3.71	7.11
21. Dhangarhi	(530)				(11 757)	1.8	27 274	2.5	44 753	2.6	8.41	4.95
22. Dharan	(4 486)		13 998	4.2	20 503	3.2	42 146	3.8	66 457	3.9	7.21	4.55
23. Inaruwa					(8 312)	1.3	(16 463)	1.5	18 547	1.1	6.83	1.19
24. Jaleswor	(3 416)				(10 651)	1.7	(16 322)	1.5	18 088	1.1	4.27	1.03
25. Janakpur	7 037	3.0	8 928	2.7	14 294	2.2	34 840	3.2	54 710	3.2	8.91	4.51
26. Kalaiya	(1 350)				(9 987)	1.6	(15 006)	1.4	18 498	1.1	4.07	2.09
27. Lahan	(1 777)				(9 114)	1.4	13 775	1.3	19 018	1.1	4.13	3.23
28. Malangwa	5 551	2.3	6 721	2.0	(8 241)	1.3	(14 642)	1.3	14 142	0.8	5.75	-0.35
29. Mahendranagar					(23 088)	3.6	43 834	4.0	62 050	3.7	6.41	3.48
30. Nepalganj	10 813	4.5	15 817	4.7	23 523	3.7	34 015	3.1	47 819	2.8	3.69	3.41
31. Rajbiraj	(2 376)		5 232	1.6	7 832	1.2	16 444	1.5	24 227	1.4	7.42	3.88
32. Siddharthanagar	(1 154)				17 272	2.7	31 119	2.8	39 473	2.3	65.89	2.38
33. Taulihawa	(2 856)				(4 452)	0.7	(12 374)	1.1	17 126	1.0	10.22	3.25
Matihani	(4 298)		5 073	1.5								
Total population												
Urban designated	238 275	100	336 222	100.0	461 938		956 721		1 695 719	100	7.28	5.72
(Numbers)	(10)		(16)		(16)		(23)		(33)			
Undesignated	(44 523)				(177 729)		(138 362)					
(Numbers)	(21)				(17)		(10)					
Grand total	285 798		336 222	100	639 667	100	1 095 083	100	1 695 719	100	5.38	4.37

Source: Department of statistics (1957), appendix; CBS (1967), vol. I, table 19; CBS (1967), vol. V, table 19; CBS (1975), vol. V table 39; CBS (1984), vol. III, table 9; and CBS (1994), vol. II, urban table 1.

Map 2. Distribution of urban centres in Nepal, 1971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Scale
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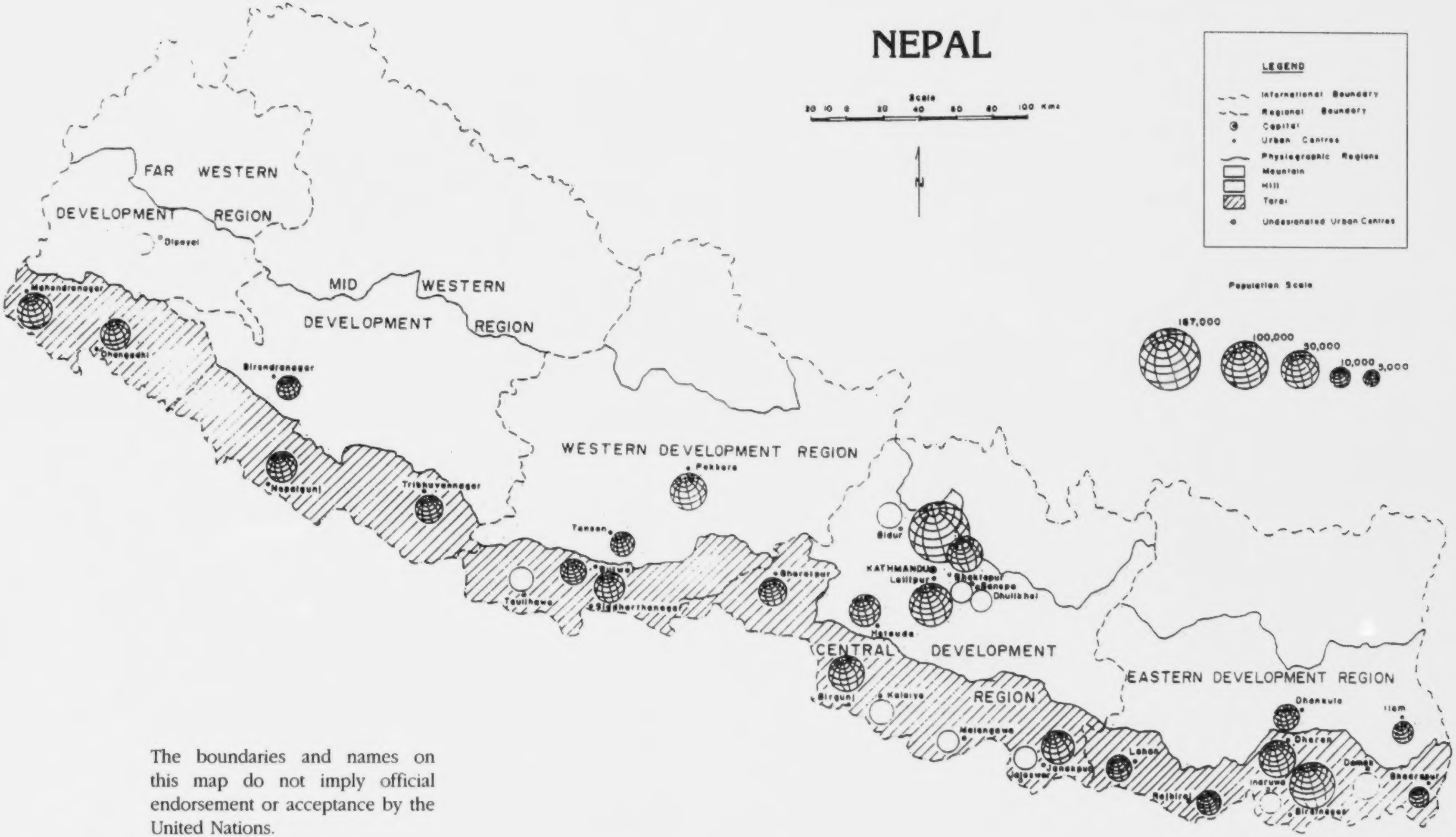
N
LEGEND
International Boundary
Regional Boundary
Capital
Urban Centres
Physiographic Regions
Mountain
Hill
Terai
Unassigned Urban Centres
Population Scale
150,000
100,000
30,000
10,000
5,000
FAR WESTERN DEVELOPMENT REGION
MID WESTERN DEVELOPMENT REGION
WESTERN DEVELOPMENT REGION
CENTRAL DEVELOPMENT REGION
EASTERN DEVELOPMENT REGION
Mahendranagar
Dhangadhi
Dipayal
Birendranagar
Nepalganj
Tribhuvannagar
Taulihawa
Butwal
Siddharthanagar
Tansen
Pokhara
Bharatpur
Bidur
KATHMANDU
Lalitpur
Bhaktapur
Banepa
Dhulikhel
Hetauda
Birgunj
Kalaiya
Malangawa
Janakpur
Jaleswar
Lahan
Rajbiraj
Dharan
Inaruwa
Biratnagar
Damak
Bhadrapur
Ilam

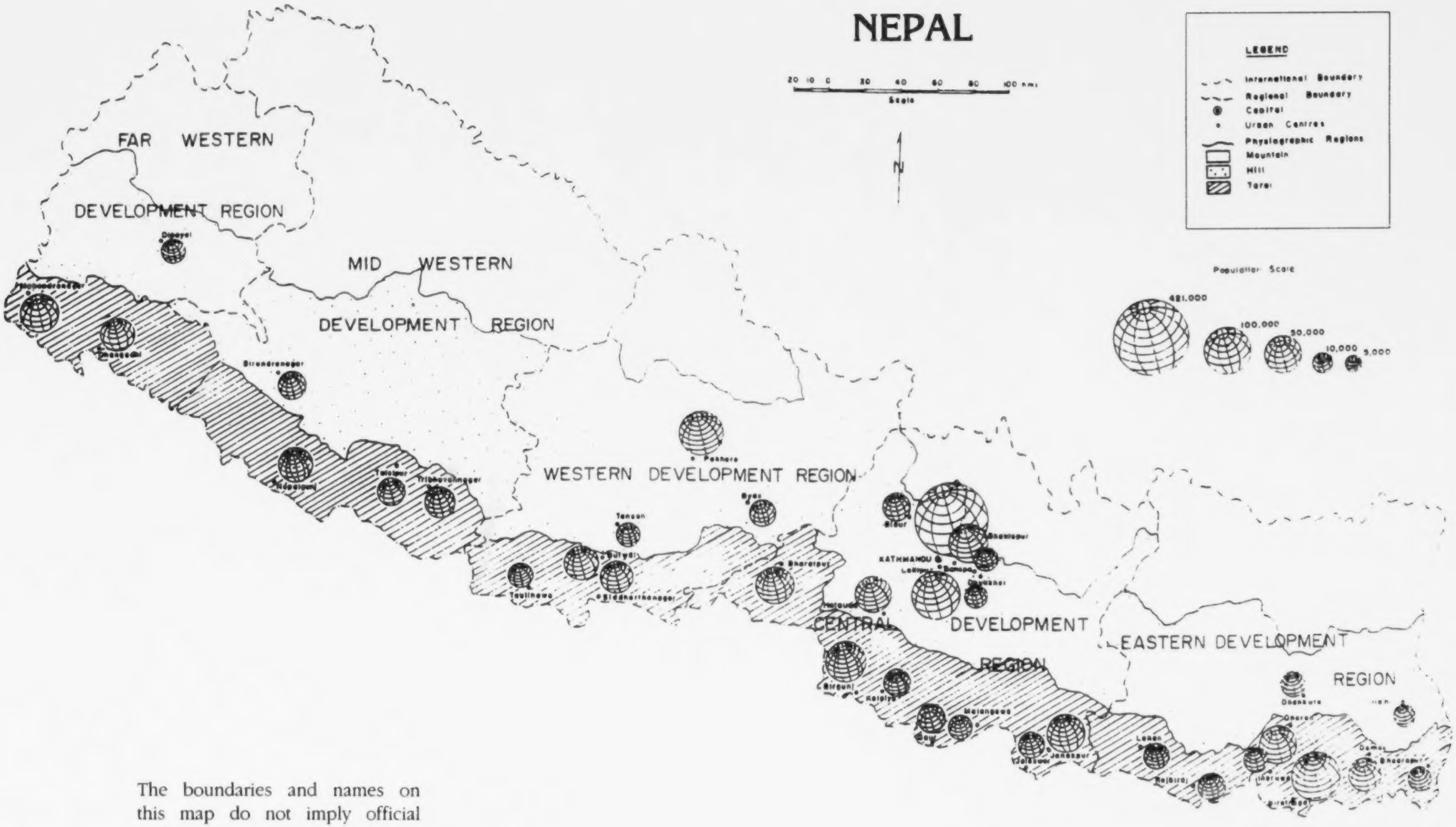
The boundaries and names on this map do not imply official endorsement or acceptance by the United Nations.

Map 3. Distribution of urban centres in Nepal, 1981


NEPAL
Scale
20 10 0 20 40 60 80 100 Kms
N
LEGEND
International Boundary
Regional Boundary
Capital
Urban Centres
Physiographic Regions
Mountain
Hill
Terai
Undesignated Urban Centres
Population Scale
167,000
100,000
30,000
10,000
5,000
FAR WESTERN DEVELOPMENT REGION
MID WESTERN DEVELOPMENT REGION
WESTERN DEVELOPMENT REGION
CENTRAL DEVELOPMENT REGION
EASTERN DEVELOPMENT REGION
Mahendranagar
Dhangadhi
Dipayal
Birendranagar
Nepalgunj
Tribhuvannagar
Pokhara
Tansen
Butwal
Taulihawa
Siddharthanagar
Bharatpur
Bidur
KATHMANDU
Lalitpur
Bhaktapur
Banepa
Dhulikhel
Hetauda
Birgunj
Kalaiya
Malangawa
Jaleswar
Janakpur
Lahan
Rajbiraj
Dhankuta
Dharan
Inaruwa
Biratnagar
Damak
Ilam
Bhadrapur

The boundaries and names on this map do not imply official endorsement or acceptance by the United Nations.

Map 4. Distribution of urban centres in Nepal, 1991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20 10 0 20 40 60 80 100 kms
Scale
N
LEGEND
International Boundary
Regional Boundary
Capital
Urban Centres
Physiographic Regions
Mountain
Hill
Terai
Population Scale
421,000
100,000
50,000
10,000
5,000
FAR WESTERN DEVELOPMENT REGION
MID WESTERN DEVELOPMENT REGION
WESTERN DEVELOPMENT REGION
CENTRAL DEVELOPMENT REGION
EASTERN DEVELOPMENT REGION
Dipayal
Mahendranagar
Dhangadhi
Birendranagar
Nepalganj
Tulsipur
Tribhuvannagar
Pokhara
Tansen
Byas
Butwal
Taulihawa
Siddharthanagar
Bharatpur
Bidur
KATHMANDU
Bhaktapur
Lalitpur
Banepa
Dhulikhel
Hetauda
Birgunj
Kalaiya
Gaur
Malangwa
Jaleswar
Janakpur
Lahan
Rajbiraj
Dhankuta
Ilam
Dharan
Inaruwa
Biratnagar
Damak
Bhadrapur

The boundaries and names on this map do not imply official endorsement or acceptance by the United Nations.

Table 6. Volume of population mobility in five censuses

	1952/54	*%*	*1961*	*%*	*1971*	*%*	*1981*	*%*	*1991*	*%*
1. Total population	8 473 478		9 412 996		11 555 983		15 022 839		18 491 097	
A) Native born			9 075 376	96.4	11 218 535	97.1	14 788 800	98.4	18 046 302	97.6
B) Foreign born			337 620	3.6	337 448	2.9	234 039	1.6	439 488	2.4
2. Non-migrants			8 652 974	91.9	10 711 610	92.7	13 516 512	90.0	16 628 096	89.9
3. Lifetime migrants (inter-district)										
A) Intra-regional migrants			243 965	2.6			233 426	1.6	-	
B) Inter-regional migrants			178 437	1.9	506 925	4.4	1 038 862	6.9	1 418 206	7.7
4. Total absentees	216 853	2.6	386 824	4.1			590 772	3.9	-	
A) Within the country	18 733	0.2	58 354	0.6			187 795	1.3	-	-
B) Abroad	198 130	2.3	328 470	3.5			402 977	2.7	658 290	3.6
Regions	9		10		10		15		15	
Districts	55		55		75		75		75	

Note: Total population = Native born + Foreign born
= Foreign born + Non-migrants + Lifetime migrants
(in case of 1971, inter-regional migrants).
Native born = Non-migrants + lifetime migrants (incase of 1971, inter-regional migrants).
Lifetime migrants = Intra-regional + inter-regional migrants
Total absentee = Within the country + abroad

Source: Department of Statistics (1957), CBS (1967, 1975, 1984, 1993a, and 1994b).

The volume of inter-regional migration increased from 170,137 in 1961 to 445,128 in 1971. The hills and the mountains together were the origin of 96.3 per cent of all inter-regional migrants. The *tarai* absorbed 82.5 per cent of the total in-migrants. The mountains, the hills, and Kathmandu Valley experienced net losses of 399,925 persons to the *tarai*. The loss from the hills constituted 82.5 per cent of the total gain of the *tarai*, with most going to the eastern and central *tarai*. Except for Kathmandu Valley, the major pattern of migration flow was from the immediate mountain and hill regions to their adjoining *tarai* regions.

The census of 1981 enumerated 1,272,288 persons as lifetime internal migrants. This constituted 8.5 per cent of the total population of the country. Of these, 233,426 persons were intra-regional migrants. The inter-regional migration volume in 1981, by 15 sub-regions, was 1,038,862 persons or 81.7 per cent of the total lifetime migrants.

The 1971 and 1981 census regions are not comparable in extent. The increase in the number of regions from 10 in 1971 to 15 in 1981 would increase the inter-regional migration volume in 1981 because of a reduction in the size of regions. The inter-zonal migration volume increased from 445,128 persons in 1971 to 929,585 persons in 1981. Among the total of lifetime inter-regional migrants of 1,038,662 recorded in 1981, 30.3 per cent originated in the mountains, 61.3 per cent in the hills and only 8.4 per cent in the *tarai*. The mountains received 5.2 per cent, the hills 20.4 per cent and the *tarai* 74.4 per cent of the total inter-regional migrants.

In 1991, among the total lifetime inter-regional migrants of 1,418,206 persons, 14.2 per cent originated in the mountains, a decrease of 113,689 out-migrants from the mountains over a decade. This decrease from the eastern mountains alone was 141,419 persons. Out-migrants from the hills increased from 636,638 (61.3 per cent) persons in 1981 to 1,021,039 (72.0 per cent) persons in 1991. Out-migrants from the western hills constituted 21.6 per cent of all migrants, up from 14.4 per cent in 1981. The mountains received only 2.8 per cent of total lifetime inter-regional migrants, the hills 18.8 per cent and the *tarai* 78.4 per cent (table 7). The net loss from the hills was 753,923; from the mountains it was 161,665, with all 915,578 gained by the tarai (figure 4).

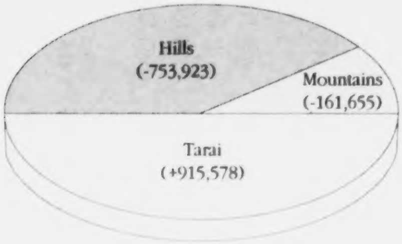
In 1991 the volume of migration among the three zones (mountains, hills and *tarai*) was 1,228,356 persons (table 8, figure 5). Among all interdistrict lifetime migrants, 379,273 or 36.5 per cent were residing in the destination for 12 years

Table 7. Number of inter-regional migrants by origin and destination, 1991

	Destination																			
	Mountains						*Hills*						*Tarai*							
Place of origin	*Total*	*Far Western*	*Mid Western*	*Western*	*Central*	*Eastern*	*Total*	*Far Western*	*Mid Western*	*Western*	*Central*	*Eastern*	*Total*	*Far Western*	*Mid Western*	*Western*	*Central*	*Eastern*	*Out-Migration*	*Per cent*
I. Mountains	**3 077**	**1 305**	**1 187**	**142**	**342**	**101**	**76 503**	**10 353**	**4 221**	**3 059**	**43 583**	**15 287**	**121 826**	**28 848**	**4 119**	**1 507**	**17 281**	**70 071**	**201 406**	**14.2**
Far Western	1 130		1 121	0	8	1	10 322	9 612	161	92	440	17	24 975	24 286	439	88	91	71	36 427	2.6
Mid Western	1 337	1 260		60	9	8	5 018	570	3 808	154	462	24	6 356	3 323	2 808	80	72	73	12 711	0.9
Western	23	3	15		4	1	4 048	21	46	1 807	2 160	14	1 069	58	94	625	254	38	5 140	0.4
Central	159	22	17	29		91	33 883	57	87	628	32 802	309	18 518	231	418	412	15 555	1 902	52 560	3.7
Eastern	428	20	34	53	321		23 232	93	119	378	7 719	14 923	70 908	950	360	302	1 309	67 987	94 568	6.7
II. Hills	**32 003**	**6 590**	**2 899**	**2 260**	**9 675**	**10 579**	**93 148**	**3 213**	**11 836**	**15 653**	**57 034**	**5 412**	**895 888**	**135 459**	**113 109**	**182 994**	**190 241**	**274 085**	**1 021 039**	**72.0**
Far Western	6 624	6 160	444	3	11	6	8 238		6 494	244	1 444	56	104 262	100 727	2 819	293	210	213	119 124	8.4
Mid Western	1 585	102	1 419	29	23	12	8 046	2 029		4 565	1 397	55	114 499	20 493	84 080	9 031	675	220	124 130	8.8
Western	3 506	147	795	1 978	492	94	33 373	612	4 253		27 971	537	269 942	8 330	21 504	165 367	71 691	3 050	306 821	21.6
Central	9 809	122	173	210	8 575	729	15 446	355	822	9 505		4 764	130 043	4 115	3 996	7 163	100 964	13 805	155 298	11.0
Eastern	10 479	59	68	40	574	9 738	28 045	217	267	1 339	26 222		277 142	1 794	710	1 140	16 701	256 797	315 666	22.3
III. *Tarai*	**4 671**	**569**	**845**	**182**	**1 316**	**1 759**	**97 465**	**2 783**	**6 390**	**11 740**	**56 818**	**19 734**	**93 625**	**23 086**	**11 004**	**13 414**	**27 791**	**18 330**	**195 761**	**13.8**
Far Western	313	263	34	1	5	10	2 945	1 654	359	147	747	38	2 867		2 252	204	204	207	6 125	0.4
Mid Western	337	52	232	6	33	14	7 491	197	4 133	821	2 265	75	20 323	16 896		2 620	577	230	28 151	2.0
Western	180	21	56	44	49	10	8 505	93	410	4 391	3 495	116	6 525	788	2 198		3 076	463	15 210	1.1
Central	1 293	98	228	86	698	183	35 961	498	738	4 927	28 217	1 581	34 382	3 096	5 040	8 816		17 430	71 636	5.1
Eastern	2 548	135	295	45	531	1 542	42 563	341	750	1 454	22 094	17 924	29 528	2 306	1 514	1 774	23 934		74 639	5.3
Total in-migration	**39 751**	**8 464**	**4 931**	**2 584**	**11 333**	**12 439**	**267 116**	**16 349**	**22 447**	**30 452**	**157 435**	**40 433**	**1 111 339**	**187 393**	**128 232**	**197 915**	**235 313**	**362 486**	**1 418 206**	
Per cent	**2.8**	**0.6**	**0.3**	**0.2**	**0.8**	**0.9**	**18.8**	**1.2**	**1.6**	**2.1**	**11.1**	**2.9**	**78.4**	**13.2**	**9.2**	**14.0**	**16.6**	**25.6**		**100.00**

Source: CBS (1993a), vol. I, Part ii, table 9.

Figure 4. Net inter-zonal lifetime migration in Nepal, 1991



Source: Tables 7 & 8.

or more (table 9); one third had been residing in the place of enumeration for 1 to 5 years and 22.7 per cent for 6-11 years.

The economically active age group of 15 to 59 years constituted 70.2 per cent of the total intra- and inter-regional migrants. The dependent age groups of 0-14 and 60 years and over constituted 29.8 per cent. However, the younger age group alone was 22.6 per cent. Male predominance over females in mobility in all regions is a characteristic phenomenon of Nepalese inter-regional migration.

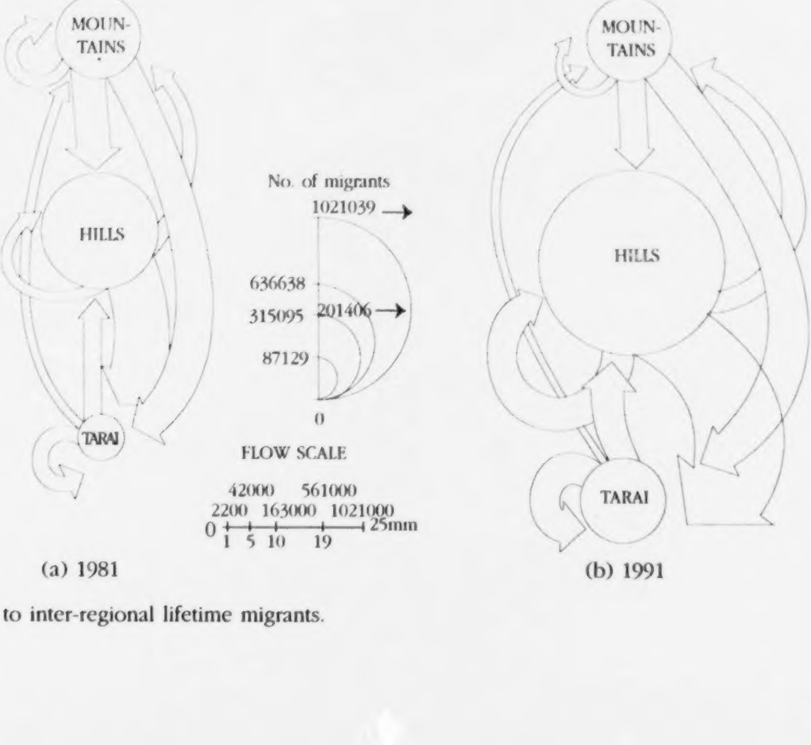
Table 8. Inter-zonal lifetime migration in Nepal, 1991

Origin	*Destination*							
	Mountains	*Hills*	*Tarai*	*Intra-zonal*	*Inter-zonal*	*Total out-migration*	*Per cent*	*Net migration*
Mountains	(3 077)	76 503	121 826	3 077	198 329	201 406	14.2	-161 655
Hills	32 003	(93 148)	895 888	93 148	927 891	1 021 039	72.0	-753 923
Tarai	4 671	97 465	(93 625)	93 625	102 136	195 761	13.8	915 578
Intra-zonal	3 077	93 148	93 625	189 850				
Inter-zonal	36 674	173 968	1 017 714		1 228 356			
Total in-migration	39 751	267 116	1 111 339			1 418 206	100.0	
Per cent	2.8	18.8	78.4					

Source: Table 7.

Note: Refers to inter-regional migrants.

Figure 5. Inter-zonal migration streams, 1981 and 1991


MOUN-
TAINS
HILLS
TARAI
No. of migrants
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636638
315095
201406
87129
0
FLOW SCALE
42000 561000
2200 163000 1021000
0
1 5 10 19
25mm
MOUN-
TAINS
HILLS
TARAI

(a) 1981

(b) 1991

Note: Refers to inter-regional lifetime migrants.

Table 9. Volume of intra- and inter-regional migration by duration of stay and broad age group, 1981

Zone	*Duration of stay*					*Broad age group*			
	1-5 years	*6-11 years*	*12 years & over*	*Unstated*	*Total*	*0-14 years*	*15-59 years*	*60 years & above*	*Total*
					in-migrants				
1. Mountains	17 833	3 778	14 258	17 759	53 628	16 831	33 144	3 653	53 628
Per cent	33.3	7.0	26.6	33.1	100.0	31.4	61.8	6.8	100.00
2. Hills	114 068	26 123	62 279	9 457	211 927	71 553	127 991	12 383	211 927
Per cent	53.8	12.3	29.4	4.5	100.00	33.8	60.4	5.8	100.00
3. *Tarai*	235 035	205 445	302 736	30 091	773 307	146 242	568 537	58 528	773 307
Per cent	30.4	26.6	39.1	3.9	100.00	18.9	73.5	7.6	100.00
Total	366 936	235 346	379 273	57 307	1 038 862	234 626	729 672	74 564	1 038 862
Per cent	35.3	22.7	36.5	5.5	100.00	22.6	70.2	7.2	100.00
					out-migrants				
1. Mountains	159 765	54 319	86 430	14 581	315 095	100 406	195 109	19 580	315,059
Per cent	50.7	17.2	27.4	4.6	100.00	31.9	61.9	6.2	100.00
2. Hills	177 947	165 870	256 855	35 966	636 638	112 612	474 622	49 406	636 638
Per cent	27.9	26.1	40.3	51.6	100.00	17.7	74.6	7.8	100.00
3. *Tarai*	29 224	15 157	35 988	6 760	87 129	21 610	59 941	5 578	87 128
Per cent	33.5	17.4	41.3	7.8	100.00	24.8	68.8	6.4	100.00
Total	366 936	235 346	379 273	57 307	1 038 862	234 626	729 672	74 564	1 038 862
Per cent	35.3	22.7	36.5	5.5	100.00	22.6	70.2	7.2	100.00

Source: CBS (1984), vol. II, table 8.

2. Inter-regional migration in one year

The 1991 census also recorded the number of inter-regional native born migrants whose place of residence one year prior to the time of the census was different from the place of residence at the time of the census, by age and sex (table 10). The census recorded 91,109 persons who changed their residence in the year prior to the census. Males predominate slightly in all regions. Over 70 per cent of such migrants were

Table 10. Percentage distribution of native born population whose place of residence one year ago was different from the current place of residence, by age and sex, Nepal, 1991

Age group	*Total*	*Nepal*		*Mountains*		*Hills*		*Tarai*	
		Male	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*
All ages	91 109	46 314	44 795	4 114	4 049	26 278	25 660	15 283	14 550
00-09	18.38	18.44	18.31	18.54	18.60	18.89	18.26	18.57	18.47
10-19	23.89	21.08	26.79	19.81	22.92	21.84	25.80	20.28	29.93
20-29	28.33	28.59	28.06	25.84	28.70	28.06	27.49	30.18	28.92
30-39	14.46	16.88	11.95	18.96	13.04	16.15	12.05	17.54	11.38
40-49	7.25	7.99	6.49	8.60	7.34	7.98	6.97	7.74	5.26
50-59	3.76	3.72	3.79	4.06	4.57	3.89	4.12	3.28	2.90
60-69	2.47	2.06	2.90	2.58	3.14	2.22	3.28	1.54	2.03
70+	1.46	1.24	1.70	1.60	1.70	1.37	2.02	0.86	1.60

Source: CBS (1993a), vol. I, Part ii, table 10.

below 30 years of age. Out of 46,314 males who had a different residence one year earlier, 28.59 per cent were in the age group 20-29 years, with 21.08 per cent in the age group 10-19 years and 18.44 per cent in the age group 0-9 years. Among the males 50 per cent were ages 10-29 years while among the females 55 per cent were. Fifty to sixty per cent of the migrants were ages 10-29 in all three regions. The proportion of one-year migrants consistently increased up to the age group 20-29 in all regions. More than 80 per cent of all migrants were below 40 years of age. Above age 40 recent migration decreased consistently. Migration of school-going children and of the economically active age groups (below 40 years) appears tobe the predominant feature of Nepalese migration. When duration of stay for a longer period was tabulated in the 1991 census, a larger number of older migrants was included. (table 9).

(a) Educational attainment of migrants

The 1991 census recorded information on the educational attainment of migrants whose place of residence one year ago was different from the current place of residence, by zones (table 11). Out of 81,415 migrants for whom this information was recorded, 60.15 per cent were literate, 39.23 per cent were illiterate and 0.62 per cent did not state their literacy. Among the migrants 16.39 per cent had secondary education (6-10 years of schooling), followed by 15.11 per cent with primary level schooling (1-5 years), 13.40 per cent with no schooling but literate and 13.41 per cent had a school leaving certificate (10 years of schooling and above).

Among the male migrants, 77.32 per cent were literate and over 23 per cent had more than 10 years of schooling. The illiteracy rate was 56.76 per cent among the female migrants and only 7.15 per cent had more than 10 years of schooling.

Among the migrants in the mountains, 73.36 per cent of males were literate as against 34.94 per cent of females. In the hills, the literate male migrants constituted 76.94 per cent of the total as against 41.47 per cent literate among female migrants. Almost 80 per cent of the male migrants in the *tarai* were literate, compared with only 46.70 per cent of the female migrants. These data show that a majority of all migrants are literate (over 60 per cent). This is in conformity with a majority of migrants falling below 40 years of age. This kind of recent migration in the past year includes movement of the school and college going population.

Table 11. Percentage distribution of native born population whose place of residence one year ago was different from the place of current residence, by educational attainment, by zone, 1991

Region of residence		*Nepal*		*Mountains*		*Hills*		*Tarai*		*Not stated*	
Educational attainment	*Total*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	(81 415)	(41 390)	(40 025)	(3 675)	(3 632)	(23 477)	(22 920)	(13 648)	(12 977)	(590)	(496)
Illiterate	39.23	22.27	56.76	25.96	64.34	22.74	57.86	19.78	52.20	37.80	70.00
Literate	60.15	77.32	42.40	73.36	34.94	76.94	41.47	79.80	46.70	59.49	27.82
No schooling	13.40	15.51	11.23	16.27	12.89	15.82	11.17	14.73	11.07	15.93	6.05
Primary (1-5)	15.11	17.45	12.69	16.87	10.19	18.19	12.70	16.54	13.48	12.54	10.50
Secondary (6-10)	16.39	21.28	11.32	19.70	7.76	20.57	10.63	23.12	13.76	16.78	5.85
SLC & equiv.	6.80	9.55	3.95	9.03	2.51	9.08	3.63	10.65	4.95	6.10	2.62
Intermediate & equiv.	3.65	5.87	1.36	5.12	0.61	5.55	1.34	6.78	1.62	2.37	1.21
Graduate and equiv.	2.41	4.26	0.50	3.29	0.17	4.20	0.53	4.71	0.55	2.54	0.40
Post graduate	0.55	1.01	0.07	0.52	0.03	1.09	0.09	1.01	0.05	0.51	0.00
Others	0.01	0.01	0.00	0.05	0.00	0.00	0.00	0.01	0.01	0.00	0.00
Level not stated	1.83	2.38	1.27	2.50	0.80	2.43	1.37	2.25	1.22	2.71	1.21
Literacy not stated	0.62	0.42	0.83	0.68	0.72	0.32	0.67	0.42	1.10	2.71	2.22

Source: CBS (1993a), vol. I, Part iii, table 11.

(b) Marital status of migrants

Almost 68 per cent of migrants of one year duration are married (table 12). The proportion married among female migrants was 75.15 per cent in the mountains, 74.91 per cent in the hills and 76.94 per cent in the *tarai*. The proportion single among males was more than double that among females, reflecting that more males are going to school. A larger proportion of females than males were widowed.

Table 12. Percentage distribution of native born population whose place of residence one year ago was different from the current place of residence, by marital status, by zone, 1991

Region of residence		*Total Nepal*		*Mountains*		*Hills*		*Tarai*		*Not stated*	
Marital status	*Total*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*
Total	100.0 (74 363)	100.0 (37 772)	100.0 (36 591)	100.0 (3 351)	100.0 (3 296)	100.0 (21 420)	100.0 (20 975)	100.0 (12 445)	100.0 (11 862)	100.0 (556)	100.0 (458)
Single	27.64	37.26	17.71	33.45	18.11	38.26	17.64	36.84	17.79	30.75	16.59
Married	67.78	60.20	75.60	63.92	75.15	59.23	74.91	60.72	76.94	64.03	75.98
Widow/widower	3.20	1.46	4.98	1.52	4.92	1.45	5.76	1.42	3.56	2.00	6.33
Divorced	0.23	0.23	0.23	0.15	0.36	0.23	0.23	0.26	0.19	0.36	0.22
Separated	0.45	0.35	0.54	0.36	0.46	0.40	0.55	0.27	0.56	0.54	0.22
Not stated	0.71	0.50	0.93	0.54	1.00	0.44	0.92	0.49	0.95	2.34	0.65

Source: CBS (1993a), vol. I, Part iii, table 12.

(c) Occupational status of migrants

The 1991 census included seven different occupational categories – professional/technical, administrative, clerical, sales, service, farming and fishing, and production and labour. Out of 43,062 economically active migrants, 42.88 per cent were farmers and fishermen, followed by 21.48 per cent involved in services, 11.34 per cent in production and labour, 5.63 per cent in clerical jobs, 5.04 per cent in sales, and 2.01 per cent in administration (table 13). Males involved in service and farming and fishing were equally divided. Among the females, an overwhelming 71.57 per cent were

Table 13. Percentage distribution of economically active native born population aged 10 years and above whose place of residence one year ago was different from the current place of residence, by major occupation and zone, 1991

Region of residence		*Total Nepal*		*Mountains*		*Hills*		*Tarai*		*Not stated*	
Occupation	*Total*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*
Both sexes	100.0 (43 062)	100.0 (28 341)	100.0 (14 721)	100.0 (2 546)	100.0 (1 662)	100.0 (15 761)	100.0 (9 075)	100.0 (9 627)	100.0 (3 748)	100.0 (407)	100.0 (236)
Prof./Tech.	4.94	6.34	2.23	6.28	1.81	5.63	2.16	7.51	2.51	6.63	3.81
Administrative	2.01	2.95	0.18	2.44	0.18	3.10	0.21	2.95	0.11	0.49	0.42
Clerical	5.63	7.90	1.26	9.54	0.84	7.19	1.13	8.73	1.84	5.41	0.00
Sales	5.04	5.31	4.54	3.61	3.07	5.34	4.33	5.74	5.92	4.42	0.85
Service	21.48	27.95	9.03	26.12	7.22	25.55	7.48	32.69	13.85	20.39	5.08
Farm. & fish.	42.88	28.00	71.57	33.70	76.41	30.23	73.92	22.27	63.05	39.80	82.63
Prod. & labour	11.34	12.70	8.74	10.37	8.66	13.53	8.31	12.13	10.14	7.86	3.40
Other occupation	6.17	8.35	1.99	7.50	1.56	8.90	1.98	7.44	2.13	14.00	2.97
Not stated	0.50	0.53	0.45	0.43	0.24	0.53	0.47	0.54	0.45	0.98	0.85

Source: CBS (1993a), vol. I, Part iii, table 13.

engaged in farming or fishing. Twice as many males as females were economically active. Fewer than 4 per cent of active females were engaged in professional/technical, administrative or clerical jobs, as against 17 per cent for males.

Occupational distributions by region and sex indicate that in the *tarai* service is the second most important occupation for both male and female migrants. Production and labour is the second most important occupation for females in the hills and mountains. Except in the *tarai*, where more males have service occupations, most male migrants reported themselves as engaged in agriculture.

I. MIGRANTS TO URBAN AREAS

1. Volume of migration

Lifetime internal migrants to urban areas constituted 16.3 per cent of the urban population in 1981 and 17.2 per cent in 1991 (table 14). Out of a total of 294,438 inter-regional urban migrants, most went to Kathmandu Valley towns (33.9 per cent) or *tarai* towns (56.8 per cent) (table 15 and map 5). International migrants increased from 3.7 per cent of the urban population in 1981 to 5.1 per cent in 1991. It should be noted that the volume of internal (292,001) and international (86,465) lifetime migrants to urban areas shown in table 14 seems to have been undercounted; as indirect estimation showed 302,964 net migrants to urban areas between 1981 and 1991 only.

In 1981, the largest number of migrants (40.5 per cent) to the urban centres of Nepal had been residing there for more than 12 years, followed by 1-5 years (33.8 per cent), 6-11 years (20.0 per cent), and less than one year (3.5per cent) (KC *et al.*, 1991).

2. Reasons for rural-to-urban migration

The 1981 census recorded reasons for migration to urban areas. However, the largest number (36.3 per cent) of migrants were reported in the "other reasons not specified" category. Migration for services in the urban areas constituted 15.8 per cent, followed by 14.5 per cent for trade and commerce, and only 6.3 per cent for study and training (KC *et al.*, 1991). Towns like Pokhara and Tansen in the hills, Kathmandu Valley towns, Hetauda in the Inner *tarai*, and Nepalganj and Birganj in the *tarai*, had attracted many migrants for trade and commerce. All Inner *tarai* and *tarai* towns had attracted migrants for agriculture. Migrating for services was proportionately higher in district headquarter towns such as Dhankuta, Ilam and Rajbiraj. The reasons for migrating into Kathmandu and Lalitpur were almost equally divided between services and trade and commerce. Migrating for study and training was of lesser importance except in Kathmandu and some *tarai* towns. Reasons for migration were not recorded in the 1991 census but were presented in the data obtained from the DSS in 1986/87.

3. Migrants to urban areas in the past year

High sex selectivity of migrants is pronounced in all urban areas. Males are positively selected in all urban centres; for example, the sex ratio of lifetime migrants in rural areas in 1991 was 73.1 but in urban areas it was 109.7 males per 100 females.

An examination of the native born population whose place of residence one year ago was different from the place of enumeration shows that there were 20,834 in urban areas or 22.9 per cent of the total of 91,109 one-year migrants (table 16). Among the urban migrants, 45.2 per cent moved to urban areas of the *tarai*, 33.5 per cent to the three towns of Kathmandu Valley and 21.3 per cent to the hill towns. In the urban areas, males were positively selected except in Ilam, Banepa, Damak and Kalaiya. Marriage migration may have been the reason for female positive selection in these areas. The sex ratio of migrants to urban areas as a whole in 1991 was 139.3. In the *tarai* it was 149.1, followed by 132.6 in Kathmandu Valley and 130.6 in the hill towns.

Among the male migrants, 46.50 per cent moved to *tarai* towns, 32.82 per cent to Kathmandu Valley towns and 20.68 per cent to hill towns. Among the female migrants, 56.54 per cent moved to hill or Kathmandu Valley towns. Of those migrants originating from the *tarai*, 50 per cent went to *tarai* towns. Over 50 per cent of female migrants originating from the *tarai* moved to hill and Kathmandu Valley towns, for both marriage and education.

Table 14. Number of international and internal migrants in urban settlements, 1981 and 1991

	Urban population		*Foreign born population*				*Internal migrants*				*F.B. NS*	*N.B. NS*
Urban settlements	*1981*	*1991*	*1981*	*%*	*1991*	*%*	*1981*	*%*	*1991*	*%*	*1991*	*1991*
A. Kath. Valley	**363 507**	**598 528**	**3 266**	**0.9**	**16 134**	**2.7**	**37 134**	**10.2**	**98 543**	**16.5**	**335**	**1 194**
1 Bhaktapur	48 472	61 405	6	n.a	155	0.3	1 610	3.3	1 389	2.3	3	50
2 Kathmandu	235 160	421 258	2 862	1.2	13 100	3.1	29 127	12.4	82 526	19.6	310	985
3 Lalitpur	79 875	115 865	398	0.5	2 879	2.5	6 397	8.0	14 628	12.6	22	159
B. Hills	**132 027**	**269 367**	**1 646**	**1.2**	**6 614**	**2.5**	**20 842**	**15.8**	**27 065**	**10.1**	**65**	**322**
4 Banepa	-	12 537	-	-	62	0.5	-	-	379	3.0	3	20
5 Bidur	-	18 694	-	-	174	0.9	-	-	1 018	5.4	-	9
6 Dhankuta	13 836	17 073	74	0.5	269	1.6	1 986	14.4	2 182	12.8	5	25
7 Dhulikhel	-	9 812	-	-	26	0.3	-	-	443	4.5	1	3
8 Dipayal	-	12 360	-	-	121	1.0	-	-	1 229	9.9	11	57
9 Ilam	9 773	13 197	175	1.8	229	1.7	1 043	10.7	1 195	9.1	-	4
10 Pokhara	46 642	95 286	700	1.5	3 518	3.7	5 600	12.0	7 932	8.3	32	114
11 Tansen	13 125	13 599	74	0.6	333	2.4	1 412	10.8	927	6.8	-	9
12 Birendranagar	13 859	22 973	47	0.3	437	1.9	2 048	14.8	3 279	14.3	3	24
13 Hetauda	34 792	53 836	576	1.7	1 445	2.7	8 753	25.2	8 481	15.8	10	57
C. *Tarai*	**461 187**	**827 824**	**30 943**	**6.7**	**63 717**	**13.8**	**97 789**	**21.2**	**166 393**	**20.1**	**325**	**921**
14 Bharatpur	27 602	54 670	991	3.6	2 174	4.0	14 126	51.2	18 903	34.6	10	45
15 Tribhuvannagar	20 608	29 050	35	0.2	478	1.6	1 299	6.3	4 577	15.8	11	17
16 Bhadrapur	9 761	15 210	1 491	15.3	2 683	17.6	2 544	26.1	2 526	16.6	8	34
17 Biratnagar	93 544	129 388	9 007	9.6	12 752	9.9	14 282	15.3	16 859	13.0	67	192
18 Birganj	43 642	69 005	2 834	6.5	7 911	11.5	5 544	12.7	4 900	7.1	10	73
19 Butwal	22 583	44 272	2 130	9.4	3 730	8.4	5 310	23.5	19 177	43.3	19	44
20 Damak	-	41 321	-	-	2 543	6.2	-	-	13 712	33.2	5	81
21 Dhangarhi	27 274	44 753	1 473	5.4	2 445	5.5	9 130	33.5	14 282	31.9	15	94
22 Dharan	42 146	66 457	3 593	8.5	4 614	6.9	16 451	39.0	20 806	31.3	53	90
23 Inaruwa	-	18 547	-	-	750	4.0	-	-	2 928	15.8	9	26
24 Jaleswor	-	18 088	-	-	1 857	10.3	-	-	422	2.3	6	5
25 Janakpur	34 840	54 710	2 884	8.3	5 062	9.3	5 528	15.9	4 309	7.9	22	47
26 Kalaiya	-	18 498	-	-	969	5.2	-	-	714	3.9	2	24
27 Lahan	13 775	19 018	543	3.9	1 317	6.9	1 415	10.3	1 009	5.3	1	5
28 Mahendranagar	43 834	62 050	782	1.8	2 496	4.0	12 902	29.4	26 278	42.3	30	67
29 Malangwa	-	14 142	-	-	1 167	8.3	-	-	566	4.0	-	5
30 Nepalganj	34 015	47 819	1 021	3.0	5 406	11.3	1 582	4.7	6 077	12.7	28	32
31 Rajbiraj	16 444	24 227	1 251	7.6	1 642	6.8	1 802	11.0	1 619	6.7	9	5
32 Siddharthanagar	31 119	39 473	2 908	9.3	2 736	6.9	5 874	18.9	5 742	14.5	15	33
33 Taulihawa	-	17 126	-	-	985	5.8	-	-	987	5.8	2	12
Total	**956 721**	**1 695 719**	**5 855**	**3.7**	**86 465**	**5.1**	**155 765**	**16.3**	**292 001**	**17.2**	**725**	**2 437**
No. of urban areas	**23**	**33**	**23**		**33**		**23**		**33**			

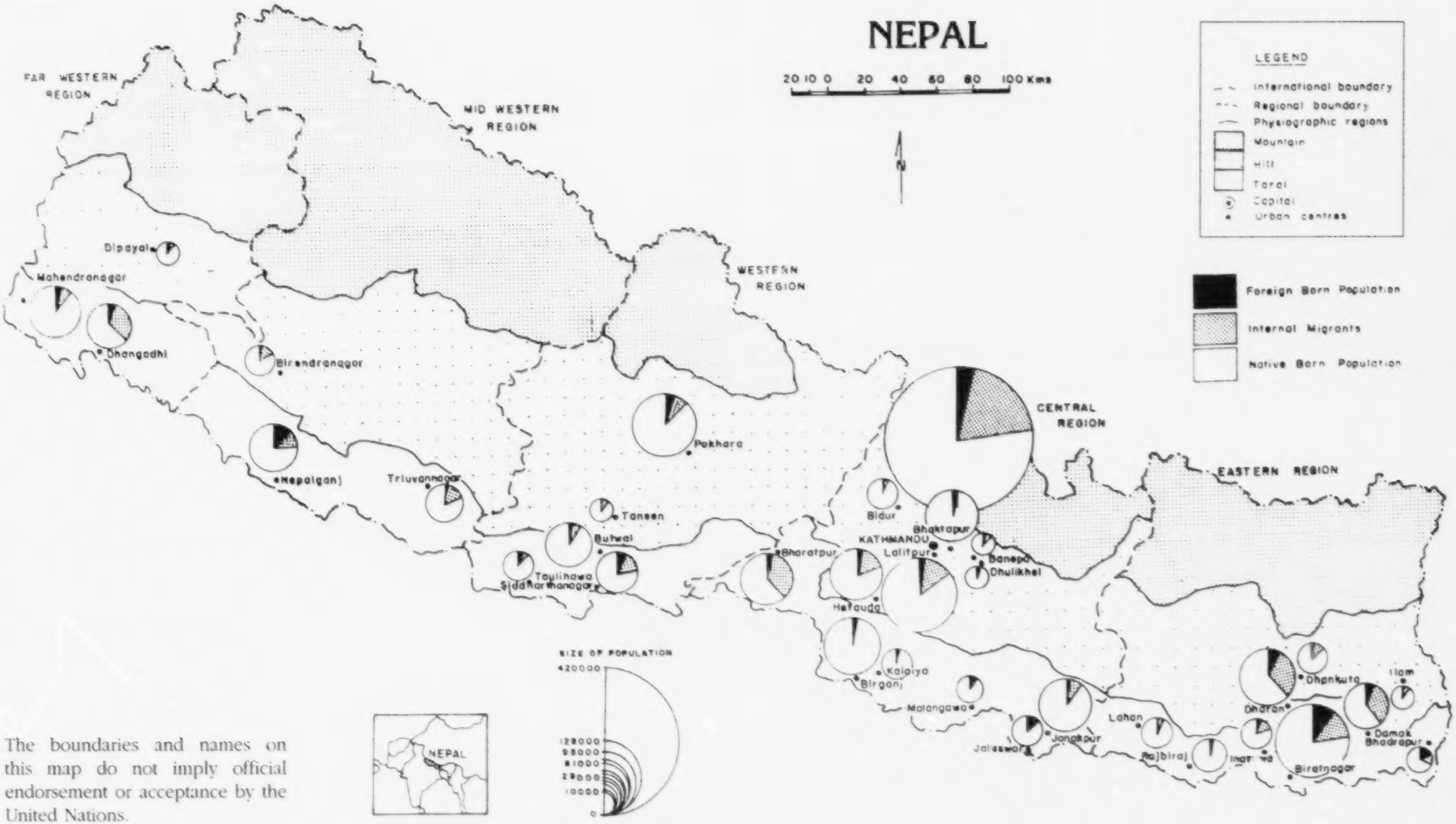
Source: CBS (1984), vol. III, table 9; CBS (1994c), vol. II, table 1 and 14 (urban tables).

Table 15. Internal migrants in urban areas, 1991

Urban areas by geographical zone	*Origin of migrants*									
	Mountain	*%*	*Hills*	*%*	*tarai*	*%*	*Not stated*	*%*	*Total*	*%*
A. Kath. Valley	**24 952**	**49.38**	**37 301**	**21.20**	**36 290**	**55.41**	**1 194**	**48.99**	**99 737**	**33.87**
1 Bhaktapur	481	0.95	415	0.24	493	0.75	50	2.05	1 439	0.49
2 Kathmandu	21 917	43.37	31 215	17.74	29 394	44.88	985	40.42	83.511	28.36
3 Lalitpur	2 554	5.05	5 671	3.22	6 403	9.78	159	6.52	14 787	5.02
B. Hills	**5 309**	**10.51**	**8 822**	**5.01**	**12 934**	**19.75**	**322**	**13.21**	**27 387**	**9.30**
4 Banepa	183	0.36	80	0.05	116	0.18	20	0.82	399	0.14
5 Bidur	327	0.65	377	0.21	314	0.48	9	0.37	1 027	0.35
6 Dhankuta	459	0.91	373	0.21	1 350	2.06	25	1.03	2 207	0.75
7 Dhulikhel	229	0.45	111	0.06	103	0.16	3	0.12	446	0.15
8 Dipayal	309	0.61	453	0.26	467	0.71	57	2.34	1 286	0.44
9 Ilam	439	0.87	156	0.09	600	0.92	4	0.16	1 199	0.41
10 Pokhara	1 227	2.43	3 877	2.20	2 828	4.32	114	4.68	8 046	2.73
11 Tansen	27	0.05	320	0.18	580	0.89	9	0.37	936	0.32
12 Birendranagar	603	1.19	1 245	0.71	1 431	2.18	24	0.98	3 303	1.12
13 Hetauda	1 506	2.98	1 830	1.04	5 145	7.86	57	2.34	8 538	2.90
D. *Tarai*	**20 274**	**40.11**	**129 850**	**73.79**	**16 269**	**24.84**	**921**	**37.79**	**167 314**	**56.82**
14 Bharatpur	985	1.95	16 661	9.47	1 257	1.92	45	1.85	18 948	6.44
15 Tribhuvanagar	93	0.18	4 061	2.31	423	0.65	17	0.70	4 594	1.56
16 Bhadrapur	364	0.72	1 821	1.03	341	0.52	34	1.40	2 560	0.87
17 Biratnagar	1 991	3.94	13 320	7.57	1 548	2.36	192	7.88	17 051	5.79
18 Birganj	262	0.52	3 446	1.96	1 192	1.82	73	3.00	4 973	1.69
19 Butwal	255	0.50	17 708	10.06	1 214	1.85	44	1.81	19 221	6.53
20 Damak	3 106	6.15	10 408	5.91	198	0.30	81	3.32	13 793	4.68
21 Dhangadhi	1 514	3.00	9 770	5.55	2 998	4.58	94	3.86	14 376	4.88
22 Dharan	3 925	7.77	16 438	9.34	443	0.68	90	3.69	20 896	7.10
23 Inaruwa	202	0.40	2 558	1.45	168	0.26	26	1.07	2 954	1.00
24 Jaleswor	35	0.07	235	0.13	152	0.23	5	0.21	427	0.15
25 Janakpur	169	0.33	2 328	1.32	1 812	2.77	47	1.93	4 356	1.48
26 Kalaiya	36	0.07	460	0.26	218	0.33	24	0.98	738	0.25
27 Lahan	53	0.10	510	0.29	446	0.68	5	0.21	1 014	0.34
28 Mahendranagar	6 693	13.24	18 651	10.60	934	1.43	67	2.75	26 345	8.95
29 Malangwa	30	0.06	391	0.22	145	0.22	5	0.21	571	0.20
30 Nepalganj	297	0.59	4 330	2.46	1 450	2.21	32	1.31	6 109	2.07
31 Rajbiraj	111	0.22	1 122	0.64	386	0.59	5	0.21	1 624	0.55
32 Siddharthanagar	138	0.27	4 904	2.79	700	1.07	33	1.35	5 775	1.96
33 Taulihawa	15	0.03	728	0.41	244	0.37	2	0.08	989	0.34
Total	**50 535**	**100.00**	**175 973**	**100.00**	**65 493**	**100.00**	**2 437**	**100.00**	**294 438**	**100.00**

Source: CBS (1994c), vol. II, table 9 (urban tables).

Map 5. Lifetime migrants and non-migrants in urban areas of Nepal


NEPAL
20 10 0 20 40 60 80 100 Kms
N
LEGEND
International boundary
Regional boundary
Physiographic regions
Mountain
Hill
Tarai
Capital
Urban centres
Foreign Born Population
Internal Migrants
Native Born Population
FAR WESTERN REGION
MID WESTERN REGION
WESTERN REGION
CENTRAL REGION
EASTERN REGION
Dipayal
Mahendranagar
Dhangadhi
Birendranagar
Nepalganj
Triuvannagar
Pokhara
Tansen
Butwal
Taulihawa
Siddharthanagar
Bharatpur
Bidur
KATHMANDU
Bhaktapur
Lalitpur
Banepa
Dhulikhel
Hetauda
Birganj
Kalaiya
Malangawa
Jaleswar
Janakpur
Lahan
Rajbiraj
Inaruwa
Biratnagar
Dharan
Dhankuta
Ilam
Damak
Bhadrapur
SIZE OF POPULATION
420000
128000
98000
81000
29000
10000
0
NEPAL

The boundaries and names on this map do not imply official endorsement or acceptance by the United Nations.

Table 16. Native born population whose place of residence (region) one year ago was different from place of enumeration, by place of residence and sex for towns, 1991

Residence one year ago		*Nepal*		*Mountains*		*Hills*		*tarai*		*Not stated*	
Urban centres	*Total*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*
Hill towns	**4 429**	**2 508**	**1 921**	**183**	**129**	**1 518**	**1 158**	**792**	**621**	**15**	**20**
	21.26	**20.68**	**22.07**	**18.73**	**17.40**	**22.78**	**23.63**	**18.25**	**20.60**	**10.20**	**24.69**
Ilam	319	157	162	16	17	86	86	55	59	0	0
Dhankuta	487	305	182	30	12	146	91	128	78	1	1
Dhulikhel	98	49	49	14	11	29	28	6	10	0	0
Banepa	67	27	40	2	4	16	29	9	7	0	0
Bidur	229	131	98	13	12	81	58	37	28	0	0
Hetauda	612	308	304	17	15	152	150	136	135	3	4
Pokhara	1 292	712	580	36	23	512	411	157	136	7	10
Tansen	847	267	119	6	3	183	71	78	45	0	0
Birendranagar	784	467	317	42	24	269	188	152	103	4	2
Dipayal	155	85	70	7	8	44	39	34	20	0	3
Valley towns	**6 981**	**3 980**	**3 001**	**383**	**327**	**2 187**	**1 731**	**1 359**	**910**	**51**	**33**
	33.51	**32.82**	**34.47**	**39.20**	**44.13**	**32.82**	**35.55**	**30.31**	**30.18**	**34.70**	**40.74**
Lalitpur	1 534	805	729	46	46	541	496	213	187	5	0
Bhaktapur	343	232	161	9	7	160	131	49	18	14	5
Kathmandu	5 054	2 943	2 111	328	274	1 486	1 104	1 097	705	32	28
***Tarai* towns**	**9 424**	**5 640**	**3 784**	**411**	**285**	**2 959**	**1 987**	**2 189**	**1 484**	**81**	**28**
	45.23	**46.50**	**43.46**	**41.07**	**38.47**	**44.40**	**41.80**	**50.44**	**49.22**	**55.10**	**34.56**
Bhadrapur	263	155	108	6	14	78	48	68	45	3	1
Damak	896	427	469	39	44	202	222	181	195	5	8
Biratnagar	1 409	1 023	386	60	11	461	175	491	198	11	2
Dharan	670	344	326	45	42	203	186	92	92	4	6
Inaruwa	52	29	23	3	1	15	10	10	12	1	0
Rajbiraj	288	195	93	13	5	77	38	99	49	6	1
Lahan	222	131	91	9	6	47	22	74	63	1	0
Janakpur	263	142	121	9	3	43	38	89	79	1	1
Jaleshwor	110	82	28	7	3	30	13	45	12	0	0
Malangwa	112	77	35	2	0	31	18	44	17	0	0
Kalaiya	70	30	40	0	2	14	14	16	24	0	0
Birgunj	531	340	191	9	2	149	80	152	108	30	1
Bharatpur	1 604	991	613	44	18	626	418	316	175	5	2
Butwal	861	477	384	20	17	327	252	127	114	3	1
Siddharthanagar	311	178	133	3	3	113	80	55	46	7	4
Taulihawa	125	78	47	5	2	44	24	29	21	0	0
Tribhuvannagar	151	96	55	3	4	71	45	22	6	0	0
Nepalgunj	532	301	231	32	27	150	90	116	113	3	1
Dhangadhi	539	330	209	36	21	153	99	140	89	1	0
Mahendranagar	415	214	201	66	60	125	115	23	26	0	0
Grand Total	**20 834**	**12 128**	**8 706**	**977**	**741**	**6 664**	**4 869**	**4 340**	**3 015**	**147**	**81**
	100.0	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: CBS (1994c), Urban table 10.

The interpretation above indicates the general patterns of educational status, marital status and occupational status of inter-regional migrants in a one-year period. Also shown was the number of urban migrants, whose socio-demographic characteristics are not separately available. The occupational and educational distributions in urban areas are likely to show greater variety, however.

Table 17 presents a consolidated picture of the volume of inter-regional migration in the year prior to the 1991 census; rural/urban migration in one year based on a 10 per cent sample of the 1991 census schedules; rural/urban lifetime migration and inter-regional lifetime migration to urban areas, based on the 1991 census. The table also presents a preliminary result of a recently conducted migration survey in Kathmandu city.

Inter-regional migrants to rural areas in the year prior to the census constituted 77.1 per cent of the total, with 22.9 per cent directed to urban areas. The sex ratio of one-year migrants to rural areas was 94.7 per cent while it was 139.3 for urban migrants, reflecting marriage migration in rural areas and male dominant migration to urban areas.

On the basis of a 10 per cent sample of the census schedules, rural-to-rural migration constituted 75.9 per cent of the one-year moves. Rural-to-urban migration constituted 23.6 per cent and the other streams are negligible. There is

Table 17. Inter-regional migration streams, Nepal 1991 and Kathmandu, 1994

Type of migration	*Total Nepal*	*Per cent*	*Male*	*Per cent*	*Female*	*Per cent*	*Sex ratio*
A. Inter-regional in past year							
Inter-regional to rural	70 275	77.1	34 186	73.8	36 089	80.6	94.7
Inter-regional to urban	20 834	22.9	12 128	26.2	8 706	19.4	139.3
Total inter-regional	91 109	100.0	46 314	100.0	44 795	100.0	103.3
B. Rural/Urban in past year (10% sample)							
Rural to rural	73 775	75.9	35 086	72.6	38 717	79.2	90.5
Rural to urban	22 896	23.6	12 975	26.9	9 921	20.3	130.8
Urban to rural	422	0.4	220	0.4	202	0.4	108.9
Urban to urban	91	0.1	49	0.1	42	0.1	116.7
Total	197 184	100.0	48 302	100.0	48 882	100.0	98.8
C. Lifetime migrants by urban/rural (10% sample)							
Migrants to rural areas	1 575 434	78.8	665 374	75.0	910 060	81.8	73.1
Migrants to urban area	425 005	21.2	222 284	25.0	202 721	18.2	109.7
Total	2 000 439		887 658	100.0	1 112 781	100.0	79.8

D. Inter-regional lifetime migrants	
One region to another	1 418 206
Region unstated	8 515

E. Inter-regional lifetime migrants to urban areas	
One region to urban area	292 001
Region unstated	2 437

F. Sample number of migrants in Kathmandu city, 1994

Migration status	*Male*	*Per cent*	*Female*	*Per cent*	*Total*	*Per cent*
Migrants	1 142	42.39	913	37.07	2 055	39.85
Non-migrants	1 552	57.61	1 550	62.93	3 102	60.15
Total	2 694	100.0	2 463	100.0	5 157	100.0

Source: Field Survey, 1994; CBS (1993b).

For "A": CBS (1993), vol. I, Part ii, table 10; for "B, C, D, E and F": CDPS, 1993.

male dominant migration from rural to urban areas with a sex ratio of 130.8. Females predominate in rural-to-rural migration. The data in table 17 show slightly different proportions for the different streams because of the way the data were computed. All data, however, indicate consistently that rural-to-urban migration comprises at least 20 per cent of the total migration volume, both for short-term and for lifetime migration.

A recent survey conducted in Kathmandu city indicates that about 40 per cent of the population residing in the city are migrants, with a sex ratio of 125. The sex ratio for non-migrants was only 100.

J. ANALYSIS OF MIGRATION STATISTICS FROM DEMOGRAPHIC SAMPLE SURVEY, 1986/87

1. Introduction

The Demographic Sample Survey of 1986/87 is the best source available for the intensive study of migration in the country. The survey was specially designed for the purpose of examining migration patterns in Nepal. Two separate samples were drawn, one for urban areas and another for rural areas. The rural sampling fraction was set at 1 in 400, and urban areas were sampled at about 6 in 400 to facilitate in-depth analysis of migration streams into urban areas. If the sampling fraction is too low, the number of cases observed in the field may be inadequate for micro-level analysis of socio-economic characteristics of migrants. If that is the case, it may not be valid to draw conclusions from the results. This should be recalled while examining the findings.

2. Definition of migration and areal units

The Demographic Sample Survey of 1986/87 collected data on lifetime migrants. Lifetime migrants were defined, as in other censuses or surveys, as those people whose place of birth is different from their place of enumeration at the village (rural) or municipal level (urban). At the time of the survey, there were 4,015 Village Panchayats (now known as Village Development Committees, VDC) and 29 municipalities. In the 1981 census, there were only 2,912 Village Panchayats. This may inflate the rural-to-rural stream because there is a possibility of treating a person as a migrant due to amalgamation of a VDC into another VDC. The reverse could also occur when a VDC is divided into two or more VDCs. Hence the volume and trend of migration shown by the Demographic Sample Survey may or may not be valid for comparison with other years, depending upon the government's policy in determining the numbers of VDCs. This is also true for urban areas where previous rural-to-rural migration may be treated as intra-urban if both rural areas have been merged with municipalities.

3. Four streams of migration

On the basis of data collected in the DSS 1986/87, four streams of migration at the national level can be identified (CBS, 1987b). They are: rural-to-rural, urban-to-rural, rural-to-urban and urban-to-urban.

The rural-to-rural and rural-to-urban migration streams are much more numerically pronounced than the other two streams. These two streams account for 89.6 and 6.8 per cent of total migrants (table 18). All the streams are dominated by female migrants, who contribute 73.1 per cent of the total volume of migration.

The ratio between the rural-bound and urban-bound migration streams is 11:1. Migrants to rural areas are derived from a matrix of 4,015 (VDCs) x 4,044 (VDCs + Municipalities), whereas migrants to urban areas come from a matrix of 29 (municipalities) x 4,044 (VDCs + municipalities). Among the males, 85.7 per cent are rural-to-rural migrants followed by rural-to-urban (10.5 per cent), urban-to-urban (2.0 per cent), and urban-to-rural (1.8 per cent). Among the females, 91.1 per cent migrated from rural-to-rural areas, followed by rural-to-urban (5.4 per cent), urban-to-rural (2.3 per cent), and urban-to-urban (1.2 per cent). The female dominance is more pronounced for rural-to-rural and urban-to-rural streams, probably because of marriage migration. Female migrants constituted 58.2 per cent of all rural-to-urban migrants and 61.4 per cent of all urban-to-urban migrants. This reflects the migration of female students and of those working in informal sectors in urban areas.

4. Composition of population

Migrants constituted 24.0 and 25.7 per cent, respectively, in rural and urban areas. At the national level, their proportion was 24.1 per cent (table 19). While the absolute volume of migrants in rural areas was extremely high (91.8 per cent) when compared with the corresponding figure in urban areas (8.2 per cent), the percentage share of migrants in the respective total populations were almost the same.

Table 18. Volume of migration by stream, by sex, 1986/87

Stream	Number of migrants.					
	Males	%	Females	%	Total	%
Rural-to-rural	930 344	85.7	2 688 927	91.1	3 619 271	89.6
Per cent	(25.7)		(74.2)			
Urban-to-rural	19 346	1.8	68 301	2.3	87 647	2.2
Per cent	(22.1)		(77.9)			
Total migration to rural	949 690	87.5	2 757 228	93.4	3 706 918	91.8
Per cent	(25.6)		(74.4)			
Rural-to-urban	114 018	10.5	159 066	5.4	273 084	6.8
Per cent	(41.8)		(58.2)			
Urban-to-urban	22 094	2.0	35 183	1.2	57 277	1.4
Per cent	(38.6)		(61.4)			
Total migration to urban areas	136 112	12.5	194 249	6.6	330 361	8.2
Per cent	(41.2)		(58.8)			
Total migration	1 085 802	100.0	2 951 477	100.0	4 037 279	100.0
Per cent	(26.9)		(73.1)		(100.0)	

Source: CBS (1987b).

Notes: The figures are inflated to national level. Bracketed figures are row percentages.

Table 19. Migrant composition of poplation, 1987

Area	Migrants	%	Non-migrants	%	Total	%
Rural	3 706 918 (24.0)	91.8	11 761 041 (76.0)	92.5	15 467 959 (100.0)	92.3
Urban	330 361 (25.7)	8.2	952 662 (74.3)	7.5	1 283 023 (100.0)	7.7
Total	4 037 279 (24.1)	100.0	12 713 703 (75.9)	100.0	16 750 982 (100.0)	100.0

Source: CBS (1987b).

Notes: The figures are inflated to national level. Bracketed figures are row percentages.

5. Age – Sex distribution of migrant population

The age distributions of migrants in percentages for sex and the four streams are presented in table 20. The age distribution of migrants differs by streams and by sex. A high concentration of migrants is observed in all streams at certain ages, though the corresponding age varies from stream to stream. Among rural-to-rural and urban-to-rural migrants, the high concentration of population is at the age groups 25 to 34 years, but for rural-to-urban and urban-to-urban migrants, the high concentration is at the age groups 20 to 29 years. Likewise, among female migrants there is a high concentration in the age groups 20 to 29 years in all streams. The proportion of migrants in the age group 0-4 years is negligible. The proportion gradually tapers off as age advances beyond 30 years. Comparing the age distributions of migrants by sex, the proportion of males ages 5 to 14 is generally higher than for females. From the examination of the age distribution of migrants, it can be noted that the proportion of females increases

Table 20. Percentage distribution of migrants by age, for sex and four streams

Age group	*Rural-to-rural (%)*			*Urban-to-rural (%)*			*Rural-to-Urban (%)*			*Urban-to-urban (%)*		
	Male	*Female*	*Sex ratio*	*Male*	*Female*	*Sex ratio*	*Male*	*Female*	*Sex ratio*	*Male*	*Female*	*Sex ratio*
0-4	2.0	0.6	137	0.8	0.7	50	0.7	0.7	75	3.3	1.1	200
5-9	6.9	2.1	120	3.4	2.1	67	3.4	1.4	168	3.9	5.4	47
10-14	9.7	3.1	117	10.1	3.1	133	5.5	4.5	88	7.2	3.3	144
15-19	9.8	8.9	41	6.7	7.3	67	10.2	10.3	71	9.9	8.7	75
20-24	9.2	14.8	23	5.0	14.6	14	13.3	14.7	65	12.2	13.7	58
25-29	11.2	13.6	30	10.9	13.6	33	12.5	12.0	75	11.6	16.2	47
30-34	10.5	11.1	35	16.0	15.3	43	11.5	10.6	78	9.9	11.2	58
35-39	8.9	10.0	33	10.1	8.7	48	9.4	10.0	67	8.8	9.0	64
40-44	8.2	8.1	37	10.9	10.1	45	8.0	10.8	53	8.3	10.1	54
45-49	5.7	7.2	30	3.4	7.0	20	6.7	7.5	64	5.0	5.4	60
50-54	6.1	6.0	38	8.4	4.9	71	7.6	4.8	115	7.7	4.0	127
55-59	3.2	4.5	27	4.2	3.5	50	3.4	3.6	67	5.0	4.7	69
60+	8.6	10.0	32	10.1	9.1	46	7.8	9.1	62	7.2	7.2	65
Total	100.0 (2 357)	100.0 (6 350)	37	100.0 (119)	100.0 (287)	42	100.0 (802)	100.0 (1 116)	72	100.0 (181)	100.0 (277)	65

Source: CBS (1987b).

Note: The figures in parentheses refer to the number of cases.

sharply after age 14 in all four streams. In the study of the age composition of migrants, there would be some effect of heaping of population on preferred digits as found in other censuses and surveys. The age distributions presented above are mainly due to the age-selective nature of migration, however.

Among the migrants age 15 years and above, the sex ratio is less than 100 in almost all cases, showing a domination of females in each stream. Adult females move from their place of birth either at the time of or after marriage.

The sex ratios in the first three age groups of each stream fluctuate widely, but the overall sex ratio of migrants aged 0 to 14 years is well over 100. Most of these children have moved from their place of birth as dependents with their parents.

6. Reasons for migration

Table 21 presents the distribution of lifetime migrants by reason for migration for each sex and the four streams. It appears that marriage and dependency are the overwhelming reasons for female migration, accounting for over 96 per cent of the reasons in every stream. The leading reason for male migration is dependency, which accounted for 40 to 54 per cent of male migrants' reasons. Migration for education, agriculture, service, trade and others is negligible among females. In the case of males, these reasons are relatively significant and can be employed in explaining migration.

Among males different patterns of reason for migration by stream can be observed. For rural-to-rural migration, agriculture and seeking a job are important reasons, accounting for 16.6 and 10 per cent respectively. Service employment comprised 14.3 per cent of the reasons for male rural-to-urban migrants. In urban-to-urban migration, service and trade contributed 16.6 and 11.0 per cent of the reasons, respectively.

Further analysis of reasons for migration by age for males reveals that dependency is the single most important reason for moving among male migrants aged 0-29 years in all streams. Agriculture was the most important reason for

Table 21. Percentage distribution of migrants by reason for migration, by stream, 1986/87

Stream	*Sex*	*Marital*	*Dependent*	*Education*	*Service*	*Trade/ com*	*Agricult.*	*Seeking job*	*Others*	*N.S.*	*Total*	
Rural-to-rural	Male	1.6	54.0	2.0	5.5	2.2	16.6	10.0	7.5	0.6	100	(2 357)
	Female	77.4	21.1	0.3	0.1	0.1	0.3	0.2	0.5	0.2	100	(6 350)
Urban-to-rural	Male	4.2	46.2	1.7	13.4	11.8	8.4	9.2	3.4	1.7	100	(119)
	Female	72.6	25.8	0.3	0.7	-	-	-	0.3	0.3	100	(287)
Rural-to-urban	Male	1.6	39.9	5.9	14.3	4.2	13.2	11.5	7.1	2.2	100	(802)
	Female	60.8	35.5	0.9	0.6	0.2	0.3	1.2	0.1	0.4	100	(1 116)
Urban-to-urban	Male	0.6	46.6	9.9	16.6	11.0	5.5	3.9	5.0	1.0	100	(181)
	Female	68.2	30.0	-	1.4	-	-	-	0.4	-	100	(277)
Total	Male	1.8	52.9	2.2	6.4	2.8	15.9	9.9	7.21	0.9	100	
	Female	76.4	21.6	0.3	0.3	0.1	0.3	0.2	0.5	0.3	100	

Source: Annex tables 1, 2, 3, 4, 5, 6, 7, and 8.

Note: Urban sample has been adjusted to arrive at national total. (The sample weights used to arrive at the combined estimates are 0.171271 and 0.159478 for urban males and females, respectively. The weight is one for rural areas).

male migration from rural-to-rural areas among males currently age 40 years and above (see Appendixes 1 and 2). Similarly, dependency is the main reason for migration among females ages 0-19 years, and marriage is the most important reason for female migration at age 20 and above.

7. Duration of stay

Classification of migration by duration of stay at the place of enumeration and sex reveals that the patterns differ by sex and stream (table 22). A greater percentage of males than females had resided less than ten years, particularly among the rural-to-rural and rural-to-urban migrants. In these streams about 50 per cent of males and 40 per cent of females had stayed for less than 10 years. In the urban-to-rural stream, 42 per cent of females and 36 per cent of males had last moved less than 10 years earlier.

When the migrants are analyzed by duration of stay, it can be noted that the percentage of migrants decreases with duration of stay up to 20 years for rural-to-rural and rural-to-urban streams. This indicates that the people from rural areas continue to move occasionally. Urban-to-urban and urban-to-rural streams do not follow any regularity in terms of duration of stay.

8. Social and economic status

(a) Marital status

The marital status of migrants by sex differs from stream to stream. About 18 per cent of male migrants aged 14 years and above were not married in the rural-to-rural and urban-to-rural streams (table 23). The figure is 5 to 7 percentage points higher for the rural-to-urban and urban-to-urban streams. Such high percentages not married are not found among female migrants. The figure for females is 13-18 percentage points less for all streams. Migrants also have different proportions of male and female widows. Overall, 12.6 per cent of female migrants are widows and 3.8 per cent of male migrants are widowed.

Analysis by age shows that the percentage of widows among female migrants increases as age advances and at the age of 60 reaches 60 to 84 per cent among the streams. Such high proportions widowed are not found among the male migrants (Appendixes 3-6).

Almost all male migrants aged 30 years and above in every stream are married. The situation is somewhat different for female migrants, with more becoming divorced. Comparing marital status of migrants with that of non-migrants by sex, it is seen that more migrants than non-migrants are

Table 22. Duration of residence of population by sex at place of enumeration, by four migration streams, Nepal, 1986

(Per cent)

Migration stream	*0-4 years*	*5-9 years*	*10-14 years*	*15-19 years*	*20 & above*	*Not stated*	*Total lifetime migrants*
Rural-to-rural							
Male	30.7	21.8	15.6	13.9	17.7	0.3	100 (2 357)
Female	20.9	17.3	14.8	12.5	34.4	0.1	100 (6 350)
Both	23.5	18.6	14.9	12.9	29.9	0.2	100 (8 707)
Urban-to-rural							
Male	24.5	11.6	16.9	23.5	23.5	-	100 (119)
Female	25.8	15.7	13.9	16.0	27.2	1.4	100 (287)
Both	25.5	14.7	14.7	18.1	26.0	1.0	100 (406)
Rural-to-urban							
Male	27.9	21.1	15.6	13.0	22.3	0.1	100 (802)
Female	21.2	19.6	16.7	11.0	31.1	0.4	100 (1 116)
Both	24.0	20.2	16.2	11.8	27.4	0.3	100 (1 918)
Urban-to-urban							
Male	29.9	16.5	19.9	8.8	23.8	1.1	100 (181)
Female	24.1	21.0	19.1	10.5	24.2	1.1	100 (277)
Both	26.3	19.3	19.4	9.8	24.1	1.1	100 (458)

Source: CBS (1987b).

Note: The figures in parentheses refer to the number of cases.

married, for both males and females and each stream. For example, the percentage of migrants married is more than 70 per cent in each stream for males and females but it is less than 60 per cent for non-migrants in both rural and urban areas. Most of the migrants are concentrated in the adult ages, which results in a higher proportion of them being married.

Table 23. Percentage distribution of migrants aged 14 years and above by sex and marital status for four streams

Stream	*Sex*	*Not married*	*Married*	*Widowed*	*Separated /divorced*	*Total*
Rural-to-rural	Male	17.9	76.7	3.1	2.2	100 (1 904)
	Female	2.8	83.2	11.9	2.1	100 (5 925)
Urban-to-rural	Male	17.6	75.5	5.9	1.0	100 (102)
	Female	4.1	81.0	14.5	0.4	100 (269)
Rural-to-urban	Male	23.1	73.0	2.5	1.5	100 (719)
	Female	5.2	80.5	12.4	1.9	100 (1 029)
Urban-to-urban	Male	25.2	71.0	2.6	1.2	100 (155)
	Female	8.8	77.6	12.4	1.2	100 (250)
Total	Male	18.3	76.4	3.8	1.5	100 (2 156)
	Female	3.0	83.0	12.6	1.4	100 (6 398)

Note: Sample adjusted to national proportions.

(b) Economically active population

Overall economic activity rates are about 7 percentage points higher among male migrants than among male non-migrants (tables 24 and 25). Such a difference is not found between female migrants and non-migrants. This implies that about the same proportion of females work in the home whether they are migrants or not.

Economic activity rates are higher among male migrants than female migrants (56 per cent). Among male migrants the rates for the first three streams (rural-to-rural, urban-to-rural and rural-to-urban) are almost the same and are about 10 percentage points higher than for the urban-to-urban migration stream. Female activity rates are far below the male rates for each stream and vary from 25 to 58 per cent by stream. Despite the low activity rates for female migrants, females from rural origins are relatively more active than those from urban origins. For example, female migrants from rural areas have activity rates of 45 and 57 per cent, whereas female migrants from urban areas have activity rates of 26 and 35 per cent.

Table 24. Economically active population among migrants aged 10 years and above, by sex and stream

Stream	*Total migrants*		*Economically active migrants*		*Activity rate*	
	Male	*Female*	*Male*	*Female*	*Male*	*Female*
Rural-to-rural	2 186	6 178	1 778	3 549	81.3	57.5
Urban-to-rural	114	279	94	97	82.5	34.8
Rural-to-urban	769	1 093	628	487	81.7	44.6
Urban-to-urban	168	259	121	66	72.0	25.5
Total•	2 461	6 673	2 000	3 734	81.3	56.0

Source: Appendixes 7 to 12.

- Sample adjusted to national percentage urban.

Table 25. Economically active population among non-migrants aged 10 years and above, by sex and place of enumeration

Area	*Non-migrants*		*Economically active non-migrants*		*Activity rates in percentages*	
	Male	*Female*	*Male*	*Female*	*Male*	*Female*
Rural	9 851	5 555	7 671	3 307	77.9	59.5
Urban	3 629	2 742	2 308	920	63.6	33.6
Total•	10 473	5 992	8 066	3 454	77.0	57.6

Source: CBS (1987b).

- Sample adjusted to national percentage urban.

Occupational classification of migrants by stream and sex shows that more than 50 per cent of male migrants are engaged in sales and services, followed by agriculture, for three streams: urban-to-rural, rural-to-urban, and urban-to-urban. Thus 50 to 65 per cent of economically active males in those streams are found working in sales and services, whereas only 12 to 25 per cent are in agriculture. For the rural-to-rural migration stream, agriculture is the dominant occupation and absorbs nearly 60 per cent of economically active male migrants (Tables 26 and 27, appendixes 7-10).

Table 26. Classification fo economically active population by occupation for four migration streams and sex, 1986/87

Stream	*Sex*	*Prof/ Adm.*	*Sales/ Service*	*Produc-tion*	*Agri-culture*	*Others*	*Not stated*	*Total*
Rural-to-rural	Male	2.6	38.6	2.0	58.9	2.9	3.0	100
	Female	0.3	14.2	1.4	74.4	5.2	4.5	100
Urban-to-rural	Male	3.2	63.8	1.1	25.5	5.3	1.1	100
	Female	2.1	24.7	5.2	59.8	6.2	0.2	100
Rural-to-urban	Male	4.2	51.4	4.5	33.8	3.0	3.1	100
	Female	0.4	19.9	4.5	58.9	9.3	7.0	100
Urban-to-urban	Male	9.1	65.3	2.5	12.4	7.4	3.3	100
	Female	12.1	37.9	6.1	21.2	13.6	9.1	100
Total*	Male	2.8	40.8	2.1	48.3	3.1	2.9	100
	Female	0.4	14.6	1.6	73.8	5.3	4.6	100

Source: CBS (1987b)

* Sample adjusted to national percentage urban.

Table 27. Classification of economically active non-migrants by occupation, for area and sex, 1986/87

Area	*Sex*	*Prof/ Adm.*	*Sales/ Service*	*Produc-tion*	*Agri-culture*	*Other*	*Not stated*	*Total*
Rural	Male	1.3	16.6	1.6	75.5	2.8	2.2	100
	Female	0.1	6.6	0.8	76.0	10.2	6.3	100
Urban	Male	4.6	45.2	4.3	38.6	4.0	3.3	100
	Female	1.7	18.9	3.3	60.9	6.6	8.6	100
Total*	Male	1.4	18.0	1.8	73.7	2.8	2.3	100
	Female	0.2	7.1	1.0	75.3	10.0	6.4	100

Source: CBS (1987b).

* Sample adjusted to national percentage urban.

Among the economically active females, more than 50 per cent are found working in the agricultural sector for the streams: rural-to-rural, urban-to-rural and rural-to-urban. The second influential occupation for females after agriculture is sales/service which accounts for only 14 to 28 per cent of economically active females. The occupational classification for females in the urban-to-urban stream shows wide spread among the various occupations like professional, administration, sales, services, production, agriculture and others. The spread among these various occupations ranges from a minimum of 6 per cent in production to a maximum of 40 per cent in sales/services. The apportionment by occupation is much more skewed in the other streams for both males and females.

(c) Literacy status

The DSS 1986/87 found that a greater percentage of male migrants are literate than male non-migrants (tables 28 and 29 and Appendixes 13-16). However, among females more non-migrants are literate than migrants. The literacy rate for male migrants of 59.6 per cent is about 11 percentage points higher than for male non-migrants. The rate for female migrants is only

Table 28. Literacy rates of migrants age 6 years and above, by sex and streams

Streams	*Sex*	*Total migrants*	*Literate migrants*	*Percentage literate*
Rural-to-rural	Male	2 291	1 316	57.5
	Female	6 253	726	11.6
Urban-to-rural	Male	118	89	75.4
	Female	284	121	42.6
Rural-to-urban	Male	788	593	75.3
	Female	1 093	276	25.3
Urban-to-urban	Male	175	158	90.3
	Female	274	187	68.2
Total	Male	2 574	1 534	59.6
	Female	6 755	921	13.6

Source: CBS (1987b).

Table 29. Literacy rates of non-migrants age 6 years and above, by sex and area

Area	*Sex*	*Total non-migrants*	*Literate non-migrants*	*Percentage literate*
Rural	Male	12 349	5 817	47.1
	Female	8 022	1 574	19.6
Urban	Male	4 490	3 327	74.1
	Female	3 540	1 908	53.9
Total	Male	13 118	6 387	48.7
	Female	8 587	1 878	21.9

Source: CBS (1987b).

13.6 per cent, which is about 8 points less than for female non-migrants.

From the stream-wise analysis of literacy among migrants (table 28), it is noted that males have almost the same proportion of literate for the rural-to-urban and urban-to-rural streams, accounting for about 75 per cent in each case. The proportion literate for males is 57 per cent for the rural-to-rural stream and 90 per cent for the urban-to-urban stream. The figures for females are below 50 per cent for the rural-to-rural, rural-to-urban, and urban-to-rural streams, but over 68 per cent for the urban-to-urban stream. Among non-migrants literacy is greater for both males and females in urban than in rural areas (table 29).

Analysis of the literate population by level of schooling completed for migrants and non-migrants shows that among female non-migrants, more than 50 per cent have completed grades 1-5, about 15 per cent have completed grades 6-9 and fewer than 6 per cent have completed grades 10-15 (table 31). Among the migrants those who have completed grades 1-5, 6-9, and 10-15 comprise 32, 20 and 16 per cent, respectively (table 30). Hence, female migrants are relatively more qualified in terms of level completed than are the non-migrants.

The highest proportions of male migrants completed grades 10-15 for the three streams, urban-to-rural, rural-to-urban, and urban-to-urban. Among the rural-to-rural stream, the highest proportion completed only grades 1-5. The proportion completing grades 10-15 is 38 per cent for the urban-to-rural and rural-to-urban streams and 55 per cent for the urban-to-urban stream. Thirty per cent of the literate rural-to-rural male migrants had completed grades 1-5.

Table 30. Percentage distribution of literate migrants age 6 years and above by educational level completed, by sex and stream

Stream	*Sex*	*No schooling*	*1-5*	*6-9*	*10-15*	*Not stated*	*Total*
Rural-to-rural	M	24.2	30.0	22.9	20.4	2.5	100 (1 316)
	F	31.4	35.5	19.0	11.1	3.0	100 (726)
Urban-to-rural	M	19.1	16.9	23.6	38.2	2.2	100 (89)
	F	21.5	19.0	21.5	38.0	-	100 (121)
Rural-to-urban	M	20.6	14.0	19.4	38.5	7.5	100 (593)
	F	26.3	23.8	28.2	18.4	3.3	100 (276)
Urban-to-urban	M	15.2	10.1	17.7	55.1	1.9	100 (158)
	F	17.6	15.0	23.3	41.2	2.7	100 (187)
Total	M	23.5	27.8	22.6	23.3	2.8	100 (1 534)
	F	29.3	32.1	20.0	16.0	2.6	100 (921)

Note: Figures in parentheses refer to numbers of cases.

Table 31. Percentage distribution of non-migrant literate population 6 years and above by sex and level of education passed for urban and rural area

Area	*Sex*	*No schooling*	*1-5*	*6-9*	*10-15*	*Not stated*	*Total*
Rural	M	25.3	41.2	19.4	11.0	3.1	100 (5 817)
	F	20.3	59.5	13.2	2.9	4.1	100 (1 574)
Urban	M	17.3	31.4	21.8	27.4	2.1	100 (332)
	F	15.8	39.6	22.0	20.7	1.9	100 (1 908)
Total	M	24.5	40.4	19.6	21.4	3.1	100 (6 386)
	F	19.6	56.3	14.6	5.7	3.8	100 (1 878)

Note: Figures in parentheses refer to numbers of cases.

Similarly, in the case of females, the highest percentage of literate migrants completed grades 10-15 for the urban-to-rural and urban-to-urban streams. For the rural-to-rural and rural-to-urban streams, the highest proportion had completed grades 1-5 and 6-9, respectively.

Age-specific literacy rates by sex for the four migration streams show that among female migrants from rural origins, those aged 6 to 14 are relatively more literate (Appendixes 13-16). The rates decline sharply by age. The age-specific literacy rates for female urban-to-rural migrants peak at 78 per cent in the 10-14 age group. The rate for urban-to-urban female migrants peaks at 94 per cent in the age group 30-34, but is over two thirds at all ages from 10 to 44.

Male migrants to urban areas, irrespective of their origins, have age-specific literacy rates of more than 65 per cent throughout all age groups. Similarly, most of the male urban-to-rural migrants have age-specific literacy rates of more than 60 per cent. Among the rural-to-rural migrants only the males aged 6-39 have literacy rates of more than 50 per cent.

K. PROJECTION OF URBAN POPULATION

The rate of growth of urban population was 4.37 per cent, in contrast to the national population growth rate of 2.08 per cent per year during the period 1981-1991. Urban growth is due to three components: (a) the natural growth rate; (b) the effect of net migration; and (c) reclassification. The contribution of each component cannot be obtained from census data. Moreover, the census data do not give reliable information on the volume of migration. In fact, the 1981 census undercounted immigrants (CBS, 1988: 6). The net effect of international migration was nil according to the 1981 census, whereas it was 16 per thousand according to the Demographic Sample Survey (DSS) 1986/87. This section of the study attempts to identify the contribution of each of the three components in the growth of the urban population between 1981 and 1991 by three urban categories and by sex. It further tries to estimate the number of rural-to-urban migrants during the five-year interval prior to the 1991 census.

1. Methodology

Urban areas are grouped into three categories: Kathmandu Valley, hills and *tarai* urban areas. Careful analyses are made to determine the demographic parameters to project the urban population from 1981 to 1991. After making necessary adjustment for reclassified urban areas, the projected urban population is compared with the actual urban population in 1991 to obtain the estimate of net effects of migration during the period 1981-1991 (see Appendixes 23-32).

The number of urban areas was 33 in 1991, whereas it was 23 in 1981. Hence, the population of those 10 undesignated urban areas in 1981 was estimated. Table 32 shows population in 1991 of those 10 undesignated urban areas in 1981, along with the estimated population in 1981.

Six urban areas, Banepa, Dipayal, Damak, Jaleswor, Kalaiya and Taulihawa, were designated urban areas in 1982, whereas the remaining four, Bidur, Dhulikhel, Inaruwa and Malangwa, were designated urban areas in 1986. The rate of growth of population from the period when they were designated urban to the year 1991 is used to estimate the population in 1981. However, for Dhulikhel and Jaleswor the population decreased in the preceding years from when they were designated as urban areas until 1991. Thus, excluding these two urban areas, the populations of the eight remaining areas are estimated for 1981. The rate of growth of population for these eight areas during the period 1981-1991 is used to estimate the population of Dhulikhel and Jaleswor in 1981. In this way, the populations of 33 designated urban areas in 1991 are estimated for 1981. Using the urban age distribution of 1981, the population of 33 designated urban areas is projected to 1991 by three urban categories and by sex. By comparing with the observed population, net migration is estimated for three urban categories by age and sex.

The non-migrant urban population in 1991 is estimated based on the population projection of 23 designated urban areas in 1981. The population reclassified during the period 1981-1991 is estimated by subtracting the net migration and non-migrant population from the actually enumerated population in 1991 for each urban category. In other words, the reclassified population is obtained by the relation: *reclassified population during 1981-1991 = observed population in 1991 – Net migration during 1981-1991 – non-migrants during 1981-1991.* It is to be noted here that this procedure will include net migration in urban areas designated in 1991 but not in 1981 in total

Table 32. Population of 10 urban centres in 1981 (undesignated) and 1991

Urban area	*1981*	*1982*	*1986*	*1991*
1. Banepa	10 383	10 581		12 537
2. Bidur	15 460		17 000	18 694
3. Dhulikhel	6 842		10 000	9 812
4. Dipayal	9 355	9 619		12 360
5. Damak	27 292	28 448		41 321
6. Inaruwa	7 764		12 000	18 547
7. Jaleswor	12 613	19 260		18 088
8. Kalaiya	15 431	15 713		18 498
9. Malangwa	7 796		10 500	14 142
10. Taulihawa	13 364	13 700		17 126

net migration rather than in the reclassified population. Thus, the total urban population growth is obtained for each the Valley, hill and *tarai* region, classified by the contribution of net migration, natural increase and reclassification during the period 1981-1991. Further attempts are made to estimate the number of rural-urban migrants during the five-year interval prior to the 1991 census by using assumptions from the DSS, 1986/87.

An exercise is carried out to project the urban population of 1991 up to the year 2011 by age and sex with three possible assumptions on fertility and mortality levels, along with plausible assumptions on the percentage of population which will be contributed by net migration and reclassification.

2. Fertility assumptions

(a) Fertility levels

The fertility levels for three urban categories in 1981 have already been estimated (KC, *et al.*, 1991:159). That estimation procedure is shown in Appendixes 23-25. Fertility levels for three urban categories in 1991 are estimated based on 1991 census data; a 10 per cent sample of the 1991 census; and the Fertility, Family Planning and Health Status Survey, 1991. A detailed analysis has been carried out to estimate the fertility level in 1991 based on the 10 per cent sample of the 1991 census. The fertility level has been estimated to be 4.0 children per woman (CBS, 1993b). The 1991 census data and the survey data have also been analyzed by using methods based on the P/F ratio. This is a method for estimating fertility level by using the shape of the observed curve of age-specific fertility rates (ASFR) and adjusting the level by using the ratio of the reported parity to cumulated current fertility derived from the births in the past year for women in their early twenties

The 1991 census gave a figure of 3.48 children per urban woman while the survey data gave a figure of 3.44 children per urban woman. As the methodology requires the assumption of constant fertility, these values were not taken despite the close agreement between census and survey results. A total fertility rate (TFR) of 4.0 children per woman is assumed for urban areas in 1991 based on detailed analysis of the 10 per cent sample of the 1991 census. Moreover, the TFR value of 4.0 is more plausible than 3.5 for urban areas in 1991 considering the fact that the TFR value was 5.6 children per woman in 1981. The contraceptive prevalence rate (CPR) for any method was 48.2 per cent in urban areas of Nepal in 1991. However, the relative TFR values among the three urban categories, Valley, hills and *tarai* (Appendixes 26-28) are used to estimate the TFR level in each category in 1991 (table 33).

Table 33. Estimated values of TFR for three urban categories in 1981 and 1991

Urban areas	*1981*	*1991*
1. Valley	5.0	3.0
2. Hills	5.0	3.5
3. *Tarai*	6.2	4.8
Total	5.6	4.0

As the population will be projected up to the year 2011 for three scenarios for each urban category, the declining fertility values are assumed for each scenario and for each urban category. As in the United Nations projection, it is assumed that for the high variant, the TFR would stabilize at 2.5 children per woman; for the medium variant, it would stabilize at about the replacement level and for the low variant, it would stabilize at 1.7 children per woman (United Nations, 1993:7). The TFR level is assumed to decline by 0.3, 0.6 and 0.9 for the high, medium and low variants, respectively, for the Valley towns between 1991 and 2001. The corresponding values are assumed to be 0.4, 0.8 and 1.0 for the hill towns. The corresponding values are 0.5, 1.0 and 1.5, respectively for the *tarai* towns. The TFR values are assumed to decline further by 0.2, 0.3 and 0.4 for the high, medium and low variants, respectively, for valley urban areas between 2001 and 2011. For the hill and *tarai* towns, the fertility levels are assumed to decline by 0.4 and 0.5 points, respectively. However, for the low variant in *tarai* towns, the TFR in 2011 is assumed to be 2.5. Fertility assumptions are shown in table 34.

(b) Age-specific fertility distribution

The percentage distribution of age-specific fertility rates for the three urban categories in 1981 and 1991 are derived from the distribution of estimated age-specific fertility rates based on census data (Appendixes 23-28). The percentage distribution of age-specific fertility rates for valley urban areas in 2001 is based on the trend of 1981 and 1991 values. The distribution of the age-specific fertility rates in the hill towns in 2001 is

Table 34. Fertility assumptions in 2001 and 2011

Urban areas	*Scenarios*	*Values of TFR* *1981*	 *1991*	 *2001*	 *2011*
Valley	**High**			**2.7**	**2.5**
	Medium	5.0	3.0	2.4	2.1
	Low			2.1	1.7
Hills	**High**			**3.1**	**2.7**
	Medium	5.0	3.5	2.7	2.3
	Low			2.5	2.1
Tarai	**High**			**4.3**	**3.8**
	Medium	6.2	4.8	3.8	3.3
	Low			3.3	2.5

assumed to be about the same as that for the valley in 1991. Similarly, as the values for the *tarai* urban areas in 2001 are expected to be about the same as the values for hill towns, the distribution is assumed to be the same as that for the hill towns in 1991.

As fertility levels are expected to be low in 2001 and 2011, the percentage distributions of the age-specific fertility rates in the year 2011 are assumed to be the same as in 2001. The distributions of the age-specific fertility rates for the three urban categories are presented in tables 35, 36, and 37.

Table 35. Percentage distribution of age-specific fertility rates for three urban categories, 1981

Age group	*Valley*	*Hills*	*Tarai*	*Total*
15-19	5.49	6.54	10.02	8.00
20-24	19.98	23.22	23.54	22.01
25-29	21.53	23.63	21.40	22.00
30-34	18.29	18.57	18.51	18.04
35-39	14.61	13.84	12.26	13.57
40-44	7.19	8.82	7.67	7.50
45-49	12.91	5.38	6.60	8.88
Total	100.00	100.00	100.00	100.00

Table 36. Percentage distribution of age-specific ferility rates for urban categories, 1991

Age group	*Valley*	*Hills*	*Tarai*	*Total*
15-19	11.18	18.53	13.31	12.80
20-24	34.21	30.87	30.33	31.50
25-29	28.89	23.02	25.56	26.20
30-34	15.17	13.57	15.47	15.34
35-39	7.03	8.16	9.07	8.60
40-44	2.64	4.04	4.12	3.80
45-49	.88	1.81	2.14	1.76
Total	100.00	100.00	100.00	100.00

Table 37. Percentage distribution of age-specific fertility rate in 2001 and 2011

Age group	*Valley*	*Hills*	*Tarai*
15-19	14	11.18	18.53
20-24	35	34.21	30.87
25-29	29	28.89	23.02
30-34	13	15.17	13.57
35-39	6	7.03	8.16
40-44	2	2.64	4.04
45-49	1	.88	1.81
Total	100.00	100.00	100.00

3. Mortality assumptions

The expectations of life at birth for Valley, hill and *tarai* towns in 1981 have already been estimated (KC, *et al.*, 1991: 159). The expectation of life at birth for urban areas in 1991 is estimated, based on the proportion of children dead obtained from the 1991 census and the NFFPHS, 1991. The figures are 71.3 and 61.4 years, respectively. As the expectation of life for urban areas was 56.2 years in 1981, it seems that the value of 61.4 years would be more reliable for 1991. Hence the value obtained from the census is rejected and the value obtained from the survey is accepted. However, the expectations of life at birth for three urban categories are derived from the urban value of 61.4 years in 1991 and differences in values of expectation of life for three urban categories obtained from the 1991 census.

The difference in expectation of life for males and females was found to be 2.7 years for the country in 1991 and 3 years in 1981. Hence, it is assumed that there will be 2 years' difference for urban areas in 1991. The expectations of life for males and females are assumed to be equal in 2001, and to be higher by 2 years for females in 2011. The gap between the expectation of life for males and females might be lower in 1981 and 1991 than these figures suggest and the gap could be narrowing at the rate of 0.5 years per decade. However, these difference would not greatly affect the results because the effect of the mortality is rather small in a population projection and the higher expectation of life for males than females in 1981 and 1991 has been compensated for by assuming a higher expectation of life for females than males sooner than the trend shows. The highest expectations of life at birth, of 71 years for women and 69 years for men, are assumed for Valley towns in 2011. The corresponding values are assumed to be 68 years for both sexes in 2001. The specific assumptions for each urban category are provided in table 38.

For the population projection, only one mortality variant is assumed as the effects of mortality variants would be small compared to those of fertility variants.

4. Migration assumptions

The effects of net migration have been estimated to equal 26.4, 18.4 and 11.5 per cent of the total population of Valley, hill and *tarai* towns, respectively, in 1991. The estimation of net migration during the period 1981-1991 is obtained by the difference between the observed population and the estimated population for designated urban areas in 1991. The figures for each zone for males and females in 1991 are shown in table 39. It can be seen that the percentage of net migration to total population for females is slightly more than

Table 38. Life expectancy at birth in years for three urban categories: estimates for 1991 and assumptions for 2001 and 2011

Towns	*Sex*	*1991*	*2001*	*2011*
Valley	Female	63.6	68	71
	Male	65.6	68	69
	Total	64.6	68	70
Hill	Female	59.6	65	69
	Male	61.6	65	67
	Total	60.6	65	68
Tarai	Female	58.3	65	69
	Male	60.3	65	67
	Total	59.3	65	68

Table 39. Estimated percentage of net migration to total population in 1991, by sex, and assumptions for 2001 and 2011

Urban areas	*1991*			*Assumptions*	
	Male	*Female*	*Total*	*2001*	*2011*
Valley	24.4	28.7	26.4	13.2	6.6
Hills	16.6	20.2	18.4	9.2	4.6
Tarai	10.1	13.0	11.5	5.8	2.9
Total			17.9	8.6	4.2

for males in each urban category. However, it is assumed that for future years there will be more male migrants than female migrants so that the percentages will be the same for males and females in 2001 and 2011.

For all urban areas, net migration constituted 17.9 per cent of the total population in 1991. The corresponding figure was estimated to be 20.6 per cent in 1981. Thus a decrease of about 3 per cent is noticed during the period 1981-1991. In the future, it is assumed that the percentage of net migration to total population will decrease by 50 per cent in 2001 from the value in 1991. A further 50 per cent decrease is expected between 2001 and 2011 for each urban category so that the percentage of net migrants to total urban population for the high, medium and low variants would be 4.2 per cent in 2011. These percentages are assumed to be the same for males and for females. The assumptions for each urban category are shown in table 39.

It is to be noted that the assumptions are made in terms of net migrants as a percentage of total population in each urban category for future years for males and females separately, in contrast to assumptions made about the volume of migration in previous projections (KC, *et al.*, 1991:159). In fact, according to the above assumptions, net migration would decrease in magnitude from 302,690 during 1981 to 1991 to 255,520 during 1991 to 2001 and then to 177,360 net migrants during 2001 to 2011 under the medium variant. This kind of decrease in magnitude is found for each urban category and for males as well as for females, which is in accordance with the policy stated in the Eighth Five Year Plan to decrease unplanned migration to urban areas (NPC, 1992: 610).

Various assumptions involved in estimating the number of rural-to-urban migrants during the five-year period preceding the 1991 census are mentioned here. It is to be recalled that based on 1981 population data of designated urban areas in 1991, population projections were made to 1991 by age and sex for the three categories of urban areas, Valley, hills and *tarai*. Residuals, i.e. the observed values minus the projected values for 1991, are obtained for each urban category. These residuals are assumed to be the net effects of migration to urban areas during the period 1981-1991. Based on the duration of stay of urban migrants in their place of residence in 1981, it is assumed that 65 per cent of net migrants came during the five-year period 1986-1991. Using the finding from the DSS 1986/87 that there were 47 immigrants and 16 emigrants per thousand urban population, the net number of international migrants is obtained. Subtracting this from total net migrants yields the net total number of internal migrants to urban areas for the five-year period 1986-1991. Borrowing again the figures from the DSS 1986/87, it is assumed that rural-to-urban migration is 82.6 per cent and urban-to-urban migration is 17.4 per cent of all migration to urban areas (CBS, 1988: 27).

5. Assumptions about reclassification

The actually reclassified population was 19.8 and 13.7 per cent of the total population in hill and *tarai* towns, respectively, in 1991. Kathmandu Valley did not have any reclassified population. There is a great potential to increase the urban population by reclassification in the future. There were areas in 1991 with a combined population of about 300,000 that were not designated as urban areas. In fact, immediately after the 1991 census, three more areas were designated as urban. Moreover, apart from 36 municipalities at present, there are many small towns, especially district headquarters and market centres, with populations of more than 20,000 each (NPC, 1992:

515). Furthermore, the future plan is to develop market centres along the east-west and north-south highways to control unplanned migration to urban and *tarai* areas (NPC, 1992: 610). Hence, the number of urban areas is expected to grow in the future. It is also highly likely that areas adjacent to big urban areas will be declared urban and incorporated into metropolitan cities.

As such, it is assumed that the percentage of reclassified population in the hills in 2001 will be double the percentage in 1991 and that it will be the same in 2011 as in 1991. However, for *tarai* urban areas, the percentage in 2001 would be one and a half times the percentage in 1991 because there is three times more urban population in the *tarai* than in the hills. The assumptions for each urban category are shown in table 40.

Table 40. Percentage of reclassified population to total population: observed values for 1991 and assumptions for 2001 and 2011

Urban areas	*1991*	*2001*	*2011*
Valley	0.0	1.0	1.0
Hills	19.8	39.6	19.8
Tarai	13.7	20.6	13.7

6. Findings

Urban population projections were made up to the year 2011, based on 1991 census figures, with high, medium and low variants. The population projections are made for three urban categories and by sex, and show the magnitude of each of the components, viz., net migrants, non-migrants and reclassification. The method used is the cohort component method, which projects the age-sex composition of urban population. With this method, the particular demographic factors resulting in change in age-sex structures are taken into account. It should be noted that smoothing of the population was not carried out (United Nations, 1974:56). The urban population of 1991, categorized as net migrants, non-migrants and reclassified, for total, males and females as well as three urban categories is shown in tables 41, 42 and 43. The urban population was observed to be 1.70 million in 1991. However, the urban population had been projected to be 1.79 million

Table 41. Population projection for urban areas of Nepal by three categories up to the year 2011

		High variant				*Medium variant*				*Low variant*			
		component				*component*				*contribution*			
Year	*Urban centres*	*Net migration*	*Non-migrants*	*Reclassification*	*Total*	*Net migration*	*Non-migrants*	*Reclassification*	*Total*	*Net migration*	*Non migrants*	*Reclassification*	*Total*
1991	Valley	158 238	440 290	0	598 528								
	Hill	49 459	166 543	53 365	269 367								
	Tarai	94 993	619 622	113 209	827 824								
	Total	302 690	1 226 455	166 574	1 695 719								
2001	Valley	112 653	732 270	8 531	853 454	111 245	732 116	8 424	842 785	109 837	713 962	8 317	832 116
	Hill	59 942	333 598	258 018	651 558	59 007	328 391	253 990	641 388	58 539	325 787	251 977	636 303
	Tarai	86 915	1 102 946	308 703	1 498 564	85 268	1 082 047	302 854	1 470 169	83 621	1 061 146	297 004	1 441 771
	Total	259 510	2 168 814	575 252	3 003 576	255 520	2 133 554	565 268	2 954 342	251 997	2 100 895	557 298	2 910 190
2011	Valley	70 615	988 670	10 697	1 069 982	68 099	953 450	10 316	1 031 865	65 588	918 283	9 936	993 807
	Hill	47 550	781 426	204 664	1 033 640	45 528	748 203	195 962	989 693	44 518	731 606	191 615	967 739
	Tarai	67 755	1 948 266	320 042	2 336 063	63 733	1 832 642	301 048	2 197 423	59 821	1 720 157	282 570	2 062 548
	Total	185 920	3 718 362	535 403	4 439 685	177 360	3 534 295	507 326	4 218 981	169 927	3 370 046	484 121	4 024 094

Table 42. Projection of male population for urban areas of Nepal by three categories up to the year 2011

Year	Urban centres	High variant contribution by: Net migration	Non-migrants	Reclassification	Total	Medium variant contribution by: Net migration	Non-migrants	Reclassification	Total	Low variant contribution by: Net migration	Non-migrants	Reclassification	Total
1991	Valley	76 411	237 024	0	313 435								
	Hill	22 723	86 462	27 755	136 940								
	Tarai	43 587	328 093	59 946	431 626								
	Total	142 721	651 579	87 701	882 001								
2001	Valley	58 924	383 020	4 462	446 406	58 198	378 298	4 407	440 903	57 472	373 576	4 352	435 400
	Hill	30 637	170 506	131 876	333 019	30 155	167 821	129 799	327 775	29 914	166 478	128 761	325 153
	Tarai	45 203	573 627	160 552	779 382	44 354	562 850	157 536	764 740	43 505	552 072	154 519	750 096
	Total	134 764	1 127 153	296 890	1 558 807	132 707	1 108 969	291 742	1 533 418	130 891	1 092 126	287 632	1 510 649
2011	Valley	36 777	514 911	5 571	557 259	35 482	496 783	5 375	537 640	34 189	478 675	5 179	518 043
	Hill	24 300	399 342	104 592	528 234	23 259	382 235	100 111	505 605	22 739	373 693	97 874	494 306
	Tarai	34 529	992 865	163 098	1 190 492	32 980	948 342	155 784	1 137 106	30 967	890 461	146 276	1 067 704
	Total	95 606	1 907 118	273 261	2 275 985	91 721	1 827 360	261 270	2 180 351	87 895	1 742 829	249 329	2 080 053

in a previous study (KC, *et al.*, 1991: 102). The lower urban population is because of smaller populations in the *tarai* urban areas than projected. The urban population in the Valley and hills was greater than the projected figure. The urban population growth rate of *tarai* areas was 3.2 per cent per year, compared with an expected value of 5.4 per cent per year during the period 1981-1991. Of the total urban population of 1.70 million in 1991, the *tarai* had a share of 48.8 per cent, followed by 35.3 per cent in the Valley and 15.9 per cent in hill towns.

The components of urban population of 1991 of net migration, non-migrants and reclassification were 17.9 per cent, 72.3 per cent and 9.8 per cent, respectively. Of the total net migration to urban areas, 52.3 per cent was in the Valley, followed by 31.4 per cent in the *tarai*, although the urban population is less in the Valley than in the *tarai*. The percentage of net migration in hill towns was 16.3. Of the total reclassified population, 68.0 per cent was in *tarai* towns and 32.0 per cent in the hill towns.

The contribution of net migration in urban areas as estimated by the indirect method equalled 302,690 during the period 1981-1991. The direct measure of net migration from the 1991 census is lower than the estimate obtained by the indirect method. The lower estimate probably results from the fact that lifetime migrants in urban areas are underreported by the census. On the other hand, the estimate of 302,690 net migrants obtained by the indirect method can be regarded as a conservative estimate. If the actual total population figure were higher than the population reported by the census in 1991, the estimate of net migration to urban areas during 1981-1991 obtained by the indirect method would be higher than 302,690.

It has been estimated that of the total net migrants, 52.8 per cent are females and 47.2 per cent are males. The number of male migrants was found to be 20 per cent larger than that of female migrants in urban areas during 1971-1981 (KC, *et al.*, 1991: 164). However, this was reversed during the period 1981-1991. The number of female migrants is 12 per cent larger than that of male migrants, with more female migrants in all three urban categories. Females constituted 51.7, 54.1 and 54.1 per cent of net migrants in Valley, hill and *tarai* towns respectively.

The percentage of female migrants is expected to decrease and is projected to equal 48.1 and 48.3 per cent during the periods 1991-2001 and 2001-2011, respectively, under the

Table 43. Projection of female population for urban areas of Nepal by three categories up to the year 2011

		High variant Component				*Medium variant Component*			
Year	*Urban centres*	*Net migration*	*Non-migrants*	*Reclassi-fication*	*Net Total*	*Non-migration*	*Reclassi-migrants*	*fication*	*Total*
1991	Valley	81 827	203 266	0	285 093				
	Hill	26 736	80 082	25 609	132 427				
	Tarai	51 406	291 529	53 263	396 198				
	Total	159 969	574 877	78 872	813 718				
2001	Valley	53 729	349 250	4 069	407 048	53 047	344 818	4 017	401 882
	Hill	29 305	163 092	126 142	318 539	28 852	160 570	124 191	313 613
	Tarai	41 712	529 319	148 151	719 182	40 914	519 197	145 318	705 429
	Total	124 746	1 041 661	278 362	1 444 769	122 813	1 024 585	273 526	1 420 924
2011	Valley	33 838	473 759	5 126	512 723	32 617	456 667	4 941	494 225
	Hill	23 250	382 084	100 072	505 406	22 269	365 968	95 851	484 088
	Tarai	33 226	955 401	156 944	1 145 571	30 753	884 300	145 264	1 060 317
	Total	90 314	1 811 244	262 142	2 163 700	85 639	1 706 935	246 056	2 038 630

medium variant. The trend of a decreasing number of female migrants in the future is seen for all urban categories. The projection of urban population up to 2001 and 2011 by urban categories (valley, hills and *tarai*) and by component factors (net migration, non-migrants and reclassification) for the total, male and female population under high, medium and low variants is summarized in tables 41-43.

The urban population is projection to be 3.00, 2.95, and 2.91 million in 2001 under the high, medium and low variants, respectively. The corresponding figures are 4.44, 4.22 and 4.02 million in 2011. In the earlier projection, the estimates were 3.01 million in 2001 and 4.27 million in 2011 under the plausible variant (KC, *et al.*, 1991: 162). Those estimates are quite close to the present ones. In fact, the medium variant of this study gives about the same figures as the plausible variant in the previous study. In the present study, unlike in the previous one, the analysis has determined the magnitude of the separate components of net migration, non-migrants and reclassification in the urban population.

It was projected that of the 4.2 million urban population in 2011, under the medium variant, 52.1 per cent would be in the *tarai*, 24.4 per cent in the Valley and 23.5 per cent in the hill areas. The percentage of the urban population would increase in the *tarai* and hill areas but would decrease in the Valley towns from 35.3 per cent in 1991.

The estimated 4.2 million urban population in 2011 is expected to be composed 4.2 per cent from net migration, 83.8 per cent from non-migrants and 12 per cent from reclassification during the period 2001-2011.

This study has also estimated the net number of migrants to urban areas during 1981-1991 by sex and age group. Tables 44-48 show the net number of urban migrants during the period 1981-1991 by age group and different urban categories. It can be seen that 36.8 per cent of net migrants are in the age group 20-29 years, with the highest percentage of 39.4 per cent in the *tarai* and the lowest percentage of 32.9 per cent in hill urban areas. The proportions in the age group 20-29 years are more for males in the valley, about equal in the *tarai* and more for females in the hills.

As expected, the highest percentage of net migrants (65.5 per cent) is in the broad age group 15-64 years (table 44). The distributions are almost equal for males and females. The corresponding figure is the highest for the Valley, with about equal proportions of male and female migrants. There is a greater percentage of female migrants than male migrants in the age group 15-64 in the hill and *tarai* towns. About one third of net migrants are in the age group 0-14 years, with a higher figure for towns in the hills. The proportion of male net migrants age 0-14 years exceeds that for females in each zone.

Table 44. Percentage distribution of net migrants during 1981-1991 by broad age group, urban category and sex

Age group	*Urban categories*											
	Valley			*Hills*			*Tarai*			*Total*		
	Male	*Female*	*Total*	*Male*	*Female*	*Total*	*Male*	*Female*	*Total*	*Male*	*Female*	*Total*
0-14	26.9	26.0	26.4	45.1	40.8	42.7	37.6	27.1	31.9	33.0	28.8	30.8
15-64	72.7	69.5	71.1	51.6	53.7	52.8	58.9	66.3	63.0	65.2	65.8	65.5
65+	4	4.5	2.5	3.3	5.5	4.5	3.5	6.6	5.1	1.8	5.4	3.7
Total		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Net migrants	76 411	81 827	158 238	22 723	26 736	49 459	43 587	51 406	94 993	142 721	159 969	302 690

Table 45. Estimate of net migration during 1981-1991 by sex and age for 3 Kathmandu Valley urban centres

Age group	*Actual 1991 (A) pop.*			*Projected 1991 (P) pop.*			*Difference*			*Net Migration (%)*		
	Male	*Female*	*Total*	*Male*	*Female*	*Total*	*Male (A-P)*	*Female (A-P)*	*Total (A-P)*	*Male (%)*	*Female (%)*	*Total (%)*
00-04	29 422	28 297	57 719	26 658	24 910	51 568	2 764	3 387	6 151	3.62	4.14	3.89
05-09	33 501	31 157	64 658	28 301	26 141	54 442	5 200	5 016	10 216	6.81	6.13	6.46
10-14	37 503	33 740	71 243	24 921	20 856	45 777	12 582	12 884	25 466	16.47	15.75	16.09
15-19	39 086	34 594	73 680	22 726	19 455	42 181	16 360	15 139	31 499	21.41	18.50	19.91
20-24	40 409	36 166	76 575	22 382	18 082	40 464	18 027	18 084	36 111	23.59	22.10	22.82
25-29	31 588	27 840	59 428	21 154	16 651	37 805	10 434	11 189	21 623	13.66	13.67	13.66
30-34	23 399	20 339	43 738	19 761	17 088	36 849	3 638	3 251	6 889	4.76	3.97	4.35
35-39	18 664	16 407	35 071	15 137	13 493	28 630	3 527	2 914	6 441	4.62	3.56	4.07
40-44	14 528	12 973	27 501	12 486	10 931	23 417	2 042	2 042	4 084	2.67	2.50	2.58
45-49	12 498	10 863	23 361	11 373	9 654	21 027	1 125	1 209	2 334	1.47	1.48	1.47
50-54	9 766	8 699	18 465	8 939	7 503	16 442	827	1 196	2 023	1.08	1.46	1.28
55-59	7 291	6 764	14 055	7 314	6 027	13 341	-23	737	714	-0.03	0.90	0.45
60-64	5 649	6 886	11 535	6 032	4 818	10 850	-383	1 068	685	-0.50	1.31	0.43
65-69	3 998	4 312	8 310	3 939	2 880	6 819	59	1 432	1 491	0.08	1.75	0.94
70-74	2 869	3 231	6 100	3 057	2 510	5 567	-188	721	533	-0.25	0.88	0.34
75-79	1 661	1 907	3 568	1 655	1 362	3 017	6	545	551	0.01	0.67	0.35
80+	1 603	1 918	3 521	1 189	905	2 094	414	1 013	1 427	0.54	1.24	0.90
Total	313 435	285 093	598 528	237 024	203 266	440 290	76 411	81 827	158 238	100.00	100.00	100.00

Table 46. Estimate of net migration during 1981-1991 by sex and age for 10 urban centres in the hills

	Actual 1991 (A) pop.			Projected 1991(P) pop.			Difference			Net migration (%)		
Age group	*Male*	*Female*	*Total*	*Male*	*Female*	*Total*	*Male (A-P)*	*Female (A-P)*	*Total (A-P)*	*Male (%)*	*Female (%)*	*Total (%)*
00-04	17 546	17 071	34 617	14 890	13 924	28 814	2 656	3 147	5 803	11.69	11.77	11.73
05-09	18 877	18 010	36 887	15 304	14 111	29 415	3 573	3 899	7 472	15.72	14.58	15.11
10-14	17 540	16 118	33 658	13 534	12 273	25 807	4 006	3 845	7 851	17.63	14.38	15.87
15-19	14 963	14 187	29 150	11 522	11 208	22 730	3 441	2 979	6 420	15.14	11.14	12.98
20-24	13 857	14 831	28 688	10 730	8 407	19 137	3 127	6 424	9 551	13.76	24.03	19.31
25-29	11 771	11 849	23 620	8 889	7 994	16 883	2 882	3 855	6 737	12.68	14.42	13.62
30-34	9 686	8 955	18 641	8 772	9 567	18 339	914	-612	302	4.02	-2.29	0.61
35-39	7 969	7 282	15 251	7 130	6 652	13 782	839	630	1 469	3.69	2.36	2.97
40-44	5 944	5 440	11 384	5 739	5 231	10 970	205	209	414	0.90	0.78	0.84
45-49	5 089	4 816	9 905	4 983	4 579	9 562	106	237	343	0.47	.089	0.69
50-54	4 062	3 802	7 864	3 945	3 910	7 855	117	-108	9	0.51	-0.40	0.02
55-59	3 159	2 955	6 114	3 061	2 655	5 716	98	300	398	0.43	1.12	0.80
60-64	2 503	2 712	5 215	2 499	2 247	4 746	4	465	469	0.02	1.74	0.95
65-69	1 706	1 718	3 424	1 302	935	2 237	404	783	1 187	1.78	2.93	2.40
70-74	1 079	1 178	2 257	1 103	1 128	2 231	-24	50	26	-0.11	0.19	0.05
75-79	613	670	1 283	463	464	927	150	206	356	0.66	0.77	0.72
80+	576	833	1 409	351	406	757	225	427	652	0.99	1.60	1.32
Total	136 940	132 427	269 367	114 217	105 691	219 908	22 723	26 736	49 459	100.00	100.00	100.00

Table 47. Estimate of net migration during 1981-1991 by sex and age for 20 tarai urban centres

	Actual 1991 (A) pop.			Projected 1991(P) pop.			Difference			Net migration (%)		
Age group	*Male*	*Female*	*Total*	*Male*	*Female*	*Total*	*Male (A-P)*	*Female (A-P)*	*Total (A-P)*	*Male (%)*	*Female (%)*	*Total (%)*
00-04	56 832	54 619	111 451	59 835	55 968	115 803	-3 003	-1 349	-4 352	-6.89	-2.62	-4.58
05-09	61 597	56 978	118 575	57 446	52 949	110 395	4 151	4 029	8 180	9.52	7.84	8.61
10-14	55 532	48 355	103 887	40 293	37 124	77 417	15 239	11 231	26 470	34.96	21.85	27.87
15-19	44 910	41 670	86 580	40 409	37 764	78 173	4 501	3 906	8 407	10.33	7.60	8.85
20-24	40 348	40 573	80 921	33 849	28 393	62 242	6 499	12 180	18 679	14.91	23.69	19.66
25-29	35 005	35 687	70 692	27 940	23 993	51 933	7 065	11 694	18 759	16.21	22.75	19.75
30-34	30 518	28 137	58 655	27 790	25 802	53 592	2 728	2 335	5 063	6.26	4.54	5.33
35-39	28 038	23 533	51 571	23 790	21 310	45 100	4 248	2 223	6 471	9.75	4.32	6.81
40-44	20 952	17 076	38 028	19 143	16 701	35 844	1 809	375	2 184	4.15	0.73	2.30
45-49	17 249	13 214	30 463	17 102	13 162	30 264	147	52	199	0.34	0.10	0.21
50-54	11 896	10 055	21 951	17 722	10 418	23 140	-826	-363	-1 189	-1.90	-0.71	-1.25
55-59	9 305	7 452	16 757	9 962	7 398	17 360	-657	54	-603	-1.51	0.11	-0.63
60-64	7 620	7 300	14 920	7 453	5 637	13 090	167	1 663	1 830	0.38	3.24	1.93
65-69	5 019	4 719	9 738	4 083	3 064	7 147	936	1 655	2 591	2.15	3.22	2.73
70-74	3 404	3 176	6 580	3 568	2 995	6 563	-164	181	17	-0.38	0.35	0.02
75-79	1 631	1 487	3 118	1 543	1 205	2 748	88	282	370	0.20	0.55	0.39
80+	1770	2 167	3 937	1 111	909	2 020	659	1 258	1 917	1.51	2.45	2.02
Total	431 626	396 198	827 824	388 039	344 792	732 831	43 587	51 406	94 993	100.00	100.00	100.00

Table 48. Estimate of net migration during 1981-1991 by sex and age for all urban centres of Nepal

Age group	*Actual 1991(A) pop.*			*Projected 1991(P) pop.*			*Difference*			*Net migration (%)*		
	Male	*Female*	*Total*	*Male*	*Female*	*Total*	*Male (A-P)*	*Female (A-P)*	*Total (A-P)*	*Male (%)*	*Female (%)*	*Total (%)*
00-04	103 800	99 987	203 787	101 383	94 802	196 185	2 417	5 185	7 602	1.69	3.24	2.51
05-09	113 975	106 145	220 120	101 051	93 201	194 252	12 924	12 944	25 868	9.06	8.09	8.55
10-14	110 575	98 213	208 788	78 748	70 253	149 001	31 827	27 960	59 787	22.30	17.41	19.75
15-19	98 959	90 451	189 410	74 657	68 427	143 084	24 302	22 024	46 326	17.02	13.77	15.30
20-24	94 614	91 570	186 184	66 691	54 882	121 843	27 653	36 688	64 341	19.38	22.93	21.26
25-29	78 364	75 376	153 740	57 983	48 638	106 621	20 381	25 738	47 119	14.28	16.71	15.57
30-34	63 603	57 431	121 034	56 323	52 457	108 780	7 280	4 974	12 254	5.10	3.11	4.05
35-39	54 671	47 222	101 893	46 057	41 455	87 512	8 614	5 767	14 381	6.04	3.61	4.75
40-44	41 424	35 489	76 913	37 368	32 863	70 231	4 056	2 626	6 682	2.84	1.64	2.21
45-49	34 836	28 893	63 729	33 458	27 395	60 853	1 378	1 498	2 876	0.94	0.94	0.95
50-54	25 724	22 556	48 280	25 606	21 831	47 437	118	725	843	0.08	0.45	0.28
55-59	19 755	17 171	36 926	20 337	16 080	36 417	-582	1 091	509	-0.41	0.68	0.17
60-64	15 772	15 898	31 670	15 984	12 702	28 686	-212	3 196	2 984	-0.15	2.00	0.99
65-69	10 723	10 749	21 472	9 324	6 879	16 203	1 399	3 870	5 269	0.99	2.42	0.74
70-74	7 352	7 585	14 937	7 728	6 633	14 361	-376	952	576	-0.26	0.62	0.19
75-79	3 905	4 064	7 969	3 661	3 031	6 692	244	1 033	1 277	0.17	0.65	0.42
80+	3 949	4 918	8 867	2 651	2 220	4 871	1 298	2 698	3 996	0.91	1.69	1.31
Total	882 001	813 718	1 695 719	739 280	653 749	1 393 029	142 721	159 969	302 690	100.00	100.00	100.00

About 4 per cent of the migrants are aged 64 years or more. There is a greater percentage of female migrants than male migrants in the older age group for all urban categories. An attempt was made to estimate net rural-to-urban migration during the five-year interval prior to the 1991 census.

As was observed from table 41, there were 302,690 net migrants in the 1991 urban population of 1,695,719. Assuming the contribution of 3.1 per cent of the urban population by the net effect of international migration in urban areas from the DSS 1986/87, the net number of migrants is estimated to be 250,123 from internal migration during the period 1981-1991. Using the breakdown from the 1981 census, 65 per cent of them, or 162,583, must have come during the five years prior to the 1991 census.

7. Policy implications from the urban population projections

a. The contribution of net migration during 1981-1991 equalled 17.9 per cent of the total urban population in 1991. As this is a significant proportion, the effect of net migration on urban areas needs to be studied by conducting further migration surveys.

b. As it was found by indirect estimation procedures that the census undercounts the volume of migration, longitudinal studies need to be undertaken to estimate the volume and streams of migration.

c. In the Kathmandu Valley in 1991, 26.4 per cent of the urban population resulted from net migration during 1981-1991. The volume of net migration to valley towns is expected to go on increasing if plans are not implemented effectively to reduce migration to those urban areas.

d. The projection of population by different urban categories and for net migrants, non-migrants and reclassification is a valuable tool in devising urban population policy.

e. The net number of migrants is concentrated is the age group 10-24 years. They may have migrated to urban areas for employment opportunities. Hence, if employment opportunities are made available in the rural areas from where they migrated, or created in small towns, the net volume of migration to urban areas can be expected to decrease.

f. A significant proportion of net migrants are under age 10 years, there are about equal proportions of male and female migrants in the age group 15-64 years, and a low proportion is in the old age group. These facts indicate that there is a significant proportion of people who migrate to urban areas with families. This needs to be considered while devising urban policy.

g. The number of female migrants was found to be greater than that of male migrants in all urban categories. It is necessary to conduct further research to determine whether that was the result of greater under-enumeration of the male population in urban areas by the census or whether there was a genuine increase in the share of female migrants among all migrants to urban areas.

L. LABOUR FORCE SITUATION

1. Labour force situation by rural and urban areas

The labour situation at the national level has not been encouraging over the past 20 years. In 1971, the economically active population as a percentage of the total population (crude activity rate) in rural areas was 42.4 per cent (table 49). The refined activity rate (the economically active population as a percentage of the total population aged 10 years and above) was 60.1 per cent in rural areas. The crude activity rate in rural areas increased to 46.0 per cent in 1981 but then decreased to 40.6 per cent in 1991. Similarly, the refined activity rate in the rural areas increased to 65.9 per cent in 1981 but drastically decreased to 58.3 per cent in 1991. The crude and refined activity rates of males in rural areas remained at the same level between 1971 and 1981 but both indices decreased by 1991. The crude activity rate

Table 49. Total population and economically active population 10 years and above by sex for rural and urban areas, Nepal, 1971-1991

	Total population		*Economically active population (10 years and above)*		
Census year	*Sex*	*Number*	*Number*	*Crude activity rate*	*Refined rate*
		Rural			
1971	Total	11 094 045	4 707 924	42.44	60.07
	Male	5 568 552	3 308 586	59.42	83.69
	Female	5 525 493	1 399 338	25.33	36.02
1981	Total	14 066 118	6 470 346	45.99	65.85
	Male	7 183 100	4 199 800	58.46	83.77
	Female	6 883 018	2 270 546	32.98	47.19
1991	Total	16 795 378	6 824 976	40.64	58.32
	Male	8 338 973	3 983 739	47.77	69.23
	Female	8 456 405	2 841 237	33.60	47.76
		Urban			
1971	Total	461 938	144 600	31.10	48.20
	Male	248 651	125 702	50.55	75.88
	Female	213 287	18 898	8.86	11.40
1981	Total	956 721	380 540	39.77	54.90
	Male	512 236	280 144	54.69	74.86
	Female	444 485	100 396	22.58	31.48
1991	Total	1 695 719	514 610	30.35	40.50
	Male	882 001	391 844	44.43	59.00
	Female	813 718	122 766	15.10	20.21

Source: CBS (1975), vol. V, table 39; CBS (1984), vol. I, Part i, table 5 and vol. I, Part iv, table 18; CBS (1994c), vol. II, table 15 and CBS (1993a), vol. I, Part viii, table 27.

for males decreased from about 59 per cent in 1971 and 1981 to 47.8 per cent in 1991, whereas the refined activity rate decreased to 69.2 per cent in 1991 from 84 per cent in the previous two decades.

The situation of female activity rates is different from that of males. The crude activity rates for females in rural areas increased consistently from only 25.3 per cent in 1971 to 33.0 per cent in 1981 and 33.6 per cent in 1991. Similarly, the refined activity rates for females in rural areas increased from 36.0 per cent in 1971 to 47.2 per cent in 1981 and 47.8 per cent in 1991. The decreasing trend of male activity rates and increasing trend of female activity rates may reflect increasing male migration outside the country, while females are more active at home in the absence of males.

2. Laour force situation in urban areas

The labour situation in urban areas has fluctuated between the three census dates. The crude activity rate in urban areas increased from 31.1 per cent in 1971 to 39.8 per cent in 1981 but decreased to 30.4 per cent in 1991, which was lower than in 1971. The refined activity rates show a similar trend. For males in urban areas, the crude activity rate increased from 50.6 per cent in 1971 to 54.7 per cent in 1981 and decreased to 44.4 per cent in 1991. The female crude and refined activity rates in urban areas increased from 8.9 and 11.4 per cent, respectively, in 1971 to 22.6 and 31.5 per cent in 1981, then declined to 15.1 and 20.2 per cent in 1991. While male activity rates in 1991 had fallen below the 1971 level, female activity rates (although they had fallen by 1991) were above the level of 1971. The peak activity rate for both sexes in 1981 is hard to explain. Activity rates for females in rural areas have been fairly stable, while in urban areas they are increasing.

Numerically, there were only 23 designated towns in 1981 and 33 in 1991; hence absolute figures of labour force participation are not strictly comparable. The crude activity rate decreased in Kathmandu Valley towns from 43.1 per cent in 1981 to 33.8 per cent in 1991 (table 50). The crude activity rate for males in the valley towns decreased by about 9 percentage points, while for females it decreased by more than 10 percentage points. A similar situation is discernable for hill and *tarai* towns. It should be noted that an increasing level of schooling has put an increasing number of economically inactive children in schools.

Table 50. Economically active population and crude and refined activity rates for towns, by zone, Nepal, 1981 and 1991

		Sex	*Population*	*10 years and above*		*Activity rates*	
Year	*Urban centres*		*Total*	*Total*	*Active*	*Crude*	*Refined*
1981	Hill towns	Total	132 027	94 320	60 199	45.60	63.82
		Male	68 320	48 885	37 559	54.98	76.83
		Female	63 707	45 435	22 640	35.54	49.83
	Valley towns	Total	363 507	272 994	156 633	43.10	57.37
		Male	197 749	148 992	111 602	56.44	74.90
		Female	165 758	124 002	48 031	28.98	38.73
	Tarai towns	Total	461 187	325 714	160 708	34.85	49.34
		Male	246 167	176 315	130 983	53.21	74.29
		Female	215 020	149 399	29 725	13.82	19.90
1991	Hill towns	Total	269 367	197 833	83 848	31.13	42.38
		Male	136 940	100 502	57 744	42.17	57.50
		Female	132 427	97 331	26 104	19.71	26.82
	Valley towns	Total	598 528	476 087	202 478	33.83	42.53
		Male	313 435	250 485	149 037	47.55	59.50
		Female	285 093	225 602	53 441	18.75	23.69
	Tarai towns	Total	827 824	597 678	228 284	27.58	38.20
		Male	431 626	313 160	185 063	42.88	59.10
		Female	396 198	284 518	43 221	10.91	15.20

Source: CBS (1984), Urban tables, vol. III, table 18 and CBS (1994c), vol. II, table 13.

M. INTERNATIONAL MIGRATION

1. Emigration

Mountain and hill people of Nepal have been emigrating since the Treaty of Sughauli in the first quarter of the 19th century. In the process of unification of the country, and because of the forced labour policy *(Jhara System)*, Nepalese peasants left the country either temporarily or permanently, leaving behind women, children, and old people to work in impoverished agriculture. Concomitant with this forced labour policy, the revenue and land policy accentuated indebtedness and poverty among Nepalese peasants. Such policies forced the able bodied Nepalese of the hills to move to such other places as India, Burma (now Myanmar), Bhutan, and Sikkim. Another wave of Nepali emigrants left the country because of recruitment into the British Army in colonial India and abroad. In due course, the emigration of the Nepalese hill people continued as a tradition to sustain their families.

The 1952/54 census enumerated 198,130 persons, or 2.3 per cent of the total population, as being absent from the country for more than 6 months. Of the total absentees abroad, 97.3 per cent had their origin in the Mountains/Hills.

The total absentee population outside the country in 1961 was 328,470, or 3.4 per cent of the total population. That was a 66.0 per cent increase over the number of 1952/54 absentees. The Mountain/Hill zone sent 95.1 per cent of the total absentees abroad. Absentees were not reported in the 1971 census. In 1981, the number of absentees abroad was 402,977, or 2.7 per cent of the total population. The share of absentees from the Mountains/Hills was 89.3 per cent. The absentee population in 1991 was 658,290, an increase of 63.4 per cent over the 1981 absentee population (table 51).

Table 51. Percentage distribution of absentee population of Nepal by reason, 1991

Reason for absence	*Total*	*%*	*India*	*%*	*South Asia*	*Other Asia*	*Arab. countries*	*Europe*	*North America*	*Other*
Both sexes	658 290	100.0	587 243	100.0	4 799	20 024	6 345	6 404	2 150	581
Agriculture	27 781	4.2	27 781	4.7	0	0	0	0	0	0
Trade	11 287	1.7	9 719	1.7	236	824	104	142	44	10
Employment	412 803	62.7	388 169	66.1	2 172	9 693	5 215	2 675	435	118
Edu/Train	14 990	2.3	11 386	1.9	420	879	83	1 043	870	88
Dependency	115 836	17.6	99 980	17.0	1 228	3 903	649	1 725	579	311
Others	39 933	6.1	32 210	5.5	636	2 645	182	575	150	35
Not stated	35 560	5.4	16 998	2.9	285	2 080	112	244	72	19
Male	548 002	100.0	492 079	100.0	3 652	16 364	5 951	4 581	1 484	445
Agriculture	22 495	4.1	22 495	3.8	0	0	0	0	0	0
Trade	8 861	1.6	7 561	1.3	159	731	93	90	30	9
Employment	382 855	69.9	360 388	61.4	1 880	8 755	5 101	2 394	328	103
Edu/Train	12 156	2.2	9 302	1.6	330	728	67	845	653	66
Dependency	80 039	14.6	70 114	11.9	700	2 559	438	944	353	234
Others	14 799	2.7	10 136	1.7	376	1 832	153	193	77	24
Not stated	26 797	4.9	12 128	2.1	207	1 759	99	115	43	9
Female	110 288	100.0	95 164	100.0	1 325	3 660	394	1 823	666	136
Agriculture	5 386	4.9	5 286	5.6	0	0	0	0	0	0
Trade	2 526	2.3	2 203	2.3	77	93	11	52	14	1
Employment	29 948	27.2	27 781	29.2	292	938	114	281	107	15
Edu/Train	2 834	2.6	2 084	2.2	90	151	16	198	217	22
Dependency	35 797	32.5	29 866	31.4	528	1 344	211	781	226	77
Others	25 134	22.8	23 074	24.2	260	813	29	382	73	11
Not stated	8 763	7.9	4 870	5.1	78	321	13	129	29	10

Source: CBS (1994b), vol. III, table 5.

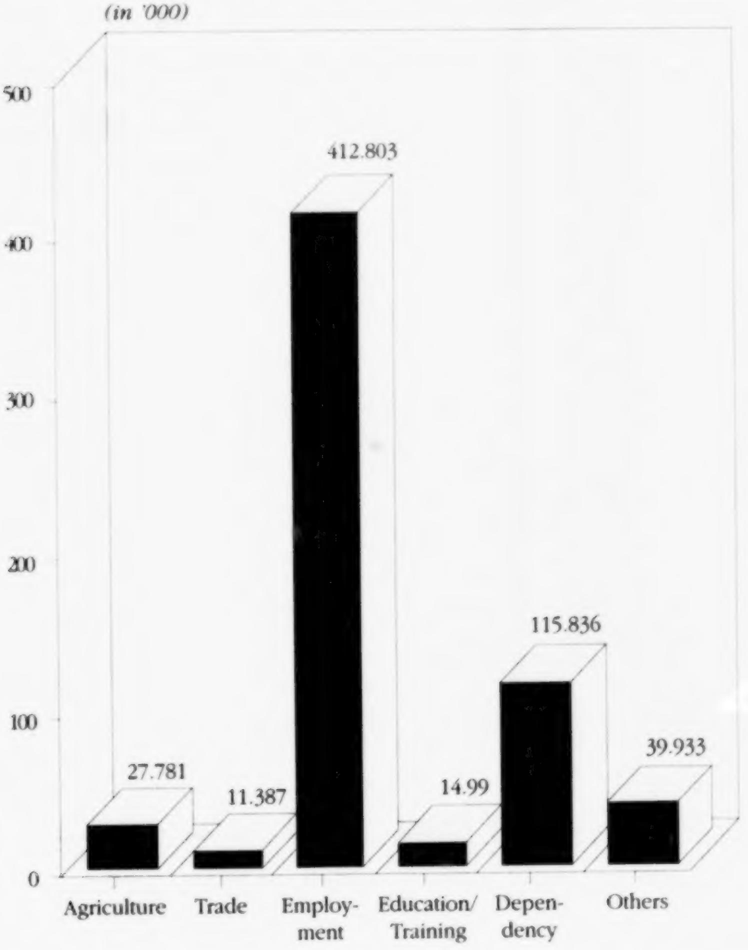
The 1952/54 census reported 157,323 persons emigrating to India. The Indian census of 1951 recorded 278,972 Nepal born persons in India, with 61.0 per cent males and 39.0 per cent females.

The 1961 census of Nepal recorded 328,470 absentees abroad, of which 302,162 or 92.0 per cent went to India. The number of Nepalese emigrants to India increased by 92.1 per cent between 1952/54 and 1961. The 1961 Indian census recorded 498,836 Nepal born persons in India. Of the total Nepal born population recorded in the Indian census of 1961, Uttar Pradesh, West Bengal, Assam, and Bihar had 82.7 per cent. Males predominated among the emigrants, although Bihar had 77.0 per cent females against 23.0 per cent males.

The 1971 Nepalese census did not record absentee population abroad. The 1971 Indian census, however, recorded 526,526 Nepal born persons in India, with a sex ratio of 108 (India, ORGCC, 1976).

The 1981 Indian census, on the basis of a 5.0 per cent sample, enumerated 501,292 Nepal born persons out of which 444,427 persons were estimated to have had their last place of residence in Nepal (India, ORGCC, 1984). On the other hand, the Nepalese census of 1981 recorded 375,196 absentee population in India. The 1991 Nepali census recorded a much larger volume of absentee population abroad. Of the total of 658,290 absentees, 587,243 or 89.2 per cent went to India (table 51). Among the total absentees, 548,002 were males and 110,288 were females. Among the males, 70 per cent went abroad for employment, 90 per cent were in India, and 14.6 per cent were dependents (also see figure 6).

Figure 6. Absentee population by reason, 1991



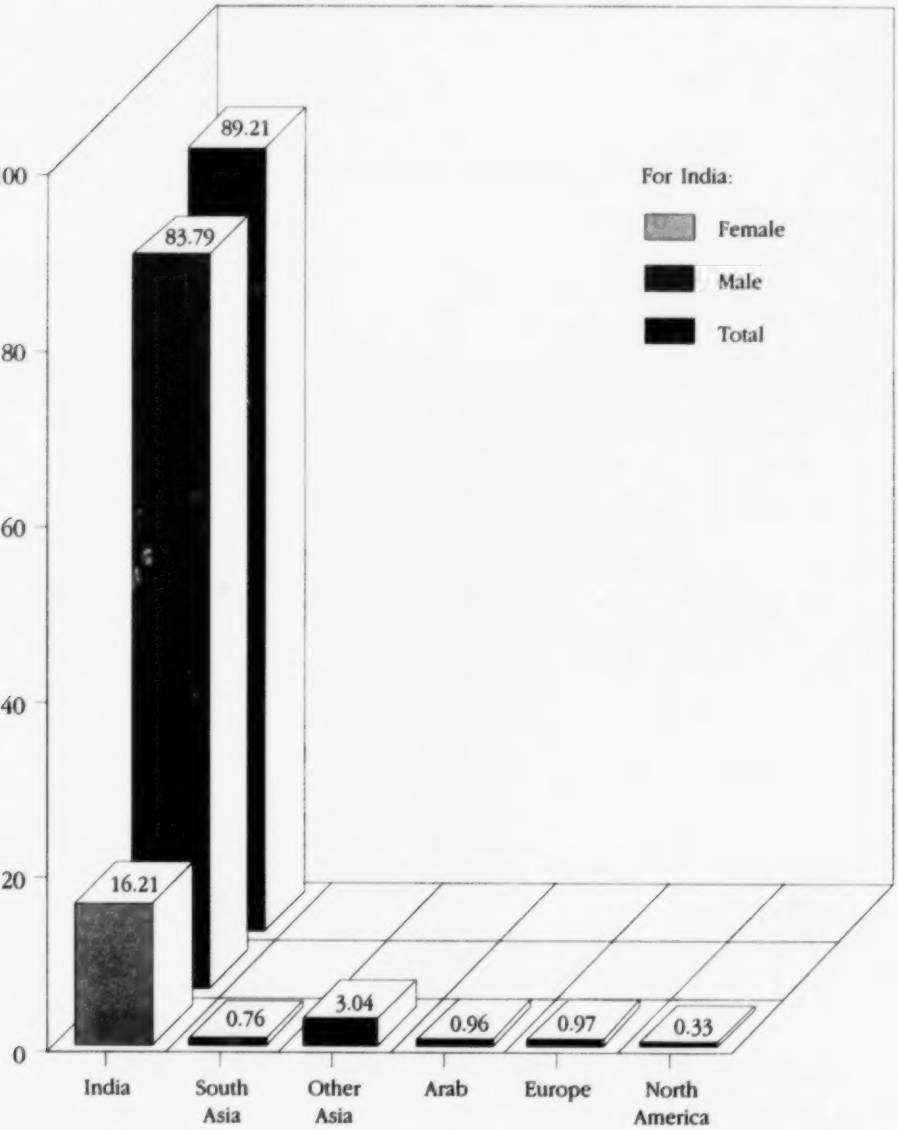
Source: Table 51.

Almost one third of the females were absent as dependents and 27.2 per cent were absent from the country for employment. The numbers of absentees going to other countries were 4,977 to South Asia, 20,024 to other Asian countries, 6,345 to Arab countries, 6,404 to Europe, 2,150 to North America, 581 to other countries, and 30,566 were unstated (figure 7).

Over 73 per cent of the total absentee population had been in the foreign countries for 10 years or less and 58.6 per cent were abroad for 5 years or less (table 52). About 74 per cent of the absentees in India were residing there for less than 11 years. Nepalese emigration to other countries started increasing from the early eighties and most emigrants had been absent for less than 6 years in 1991. Only one fourth of the emigrants had been away longer than 10 years. Short-term migrants are likely to come home after some economic gain in the foreign country.

Figure 7. Absentee population by country of destination, 1991

(Percentage of absentees at each destination)



Source: Table 51.

Table 52. Population absent from Nepal by duration and country of destination, 1991

Duration in years	*India*	*%*	*South Asia*	*Other Asia*	*Arab count.*	*Eu-rope*	*North Ame.*	*Other count.*	*Not stated*	*Total*	*%*
Total	587 243	100.0	4 977	20 024	6 345	6 404	2 150	581	30 566	658 290	100.0
<1	121 002	20.6	970	5 516	1 786	1 643	409	104	4 215	135 645	20.6
1-2	129 862	22.1	994	3 801	2 751	1 271	475	113	3 396	142 663	21.7
3-5	97 778	16.7	975	2 246	1 059	1 217	601	248	3 187	107 611	16.3
6-10	85 641	14.6	659	3 278	361	1 031	254	44	4 071	95 339	14.5
11-15	50 581	8.6	375	1 867	107	539	117	10	2 453	56 049	8.5
16-20	33 237	5.7	272	872	47	199	62	12	1 976	36 677	5.6
21-25	20 200	3.4	218	536	41	85	36	4	1 387	22 507	3.4
26-30	12 236	2.1	133	335	25	44	12	3	1 000	13 788	2.1
31-40	9 461	1.6	64	258	16	32	13	6	667	10 517	1.6
40+	4 536	0.8	39	110	15	13	9	2	314	5 038	0.8
Not stated	22 709	3.9	278	905	137	330	162	35	7 900	32 456	4.9

Source: CBS (1994b), vol. III, table 6.

2. Foreign born population in Nepal

It was only from the Nepalese census of 1961 that the volume of foreign born population in Nepal was documented. The 1961 Nepalese census recorded 337,620 persons, or 3.6 per cent of the total population, as foreign born (table 53, figure 8). Of the total foreign born, the India born constituted 96.0 per cent. The *tarai* had 92.3 per cent of the total foreign born and 98.9 per cent of those were born in India. Females constituted 64.1 per cent of the total foreign born.

Table 53. Foreign born population in Nepal, 1991

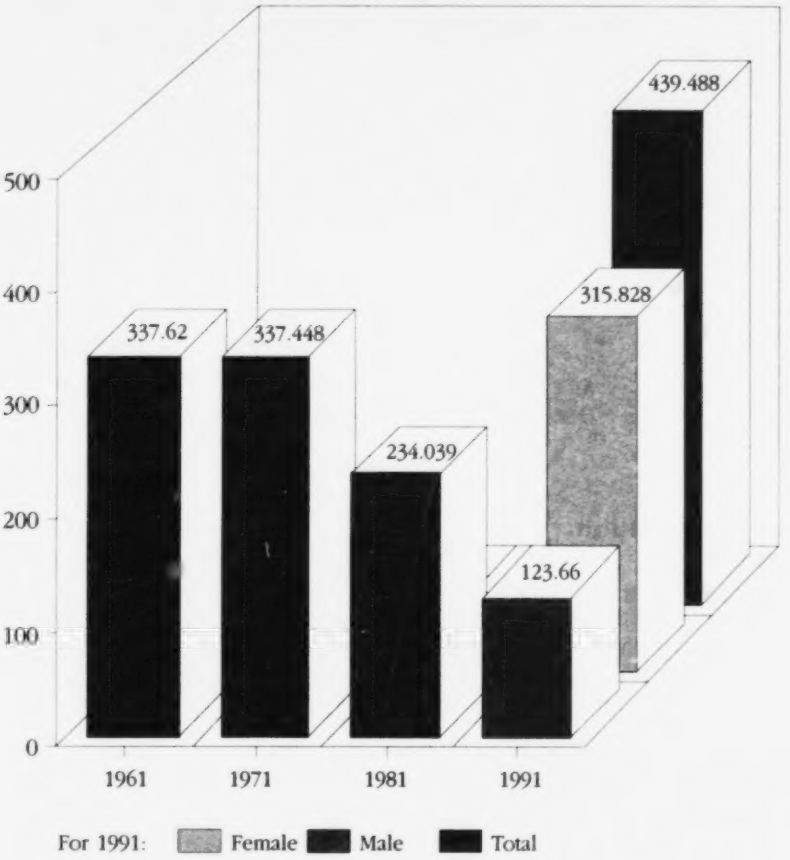
				1991		
Country	*1961*	*1971*	*1981*	*Male*	*Female*	*Total*
India	324 159	322 718	222 278	113 405	305 577	418 982
%	96.0	95.6	95.0	(27.1)	(72.9)	95.3
China	8 061	1 534	2 481			
%	2.4	0.5	1.1			
Pakistan				123	156	279
%				(44.1)	(55.9)	0.1
Bangladesh				241	306	547
%				(44.1)	(55.9)	0.1
Bhutan				1 297	1 862	3 159
%				(41.1)	(58.9)	0.7
Sri Lanka & Maldives				33	23	56
%				(58.9)	(41.1)	0.0
Other Asian countries	4 885	12 495	7 827	7 599	6 924	14 523
%	1.4	3.7	(3.3)	(52.3)	(47.7)	3.3
European countries				497	492	989
%				(50.3)	(49.7)	0.2
Other countries				465	488	953
%				(48.8)	(51.2)	0.2
Other/Unstated	515	701	1 453			
%	0.2	0.2	(0.6)			
Total	337 620	337 448	234 039	123 660	315 828	439 488
%	100.0	100.0	100.0	(28.1)	(78.9)	100.0

Source: CBS (1967), vol. II, table 12; CBS (1975), vol. II, Part 1, table 11; CBS (1984), vol. I, Part II, table 8; CBS (1993a), vol. I, Part iv, table 14.

Note: Figures in parentheses refer to the percentage of male and female in the foreign born population in 1991.

Figure 8. Foreign born population in Nepal, 1961-1991

(in '000)



Source: Table 53.

The 1971 Nepalese census reported 337,448 foreign born population in Nepal. The India born constituted 95.6 per cent of the total foreign born, and 91.3 per cent of those resided in the *tarai*.

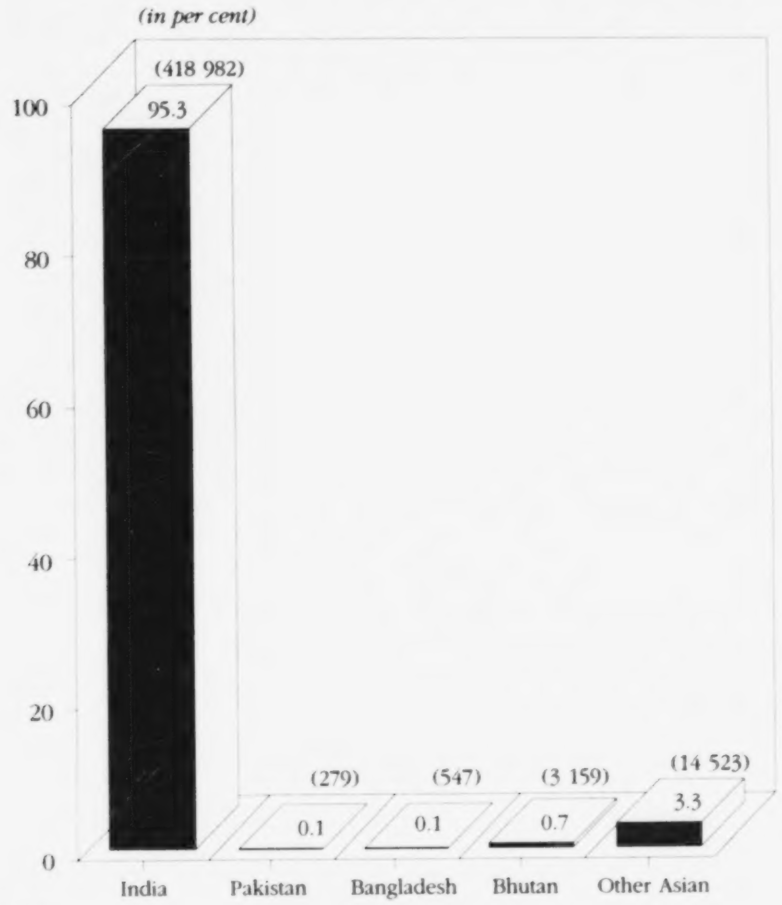
The 1981 Nepali census recorded only 234,039 persons as foreign born (table 53). India born immigrants constituted 95.0 per cent of the total foreign born. In 1991, the foreign born population equalled 439,488 persons, of which 95.3 per cent were Indians (figure 9). Among the India born 72.9 per cent were females. Over 80 per cent of the foreign born population had obtained Nepali citizenship.

Of the total foreign born population of 439,488 persons in 1991, 47.3 per cent did not state their duration of stay, while 32 per cent reported residing in Nepal for more than 10 years (table 54). Those residing for 1-5 years equalled only 7.7 per cent. Most of the foreign born population (86.2 per cent) was residing in the *tarai* and, of this, more than one third had been residing there for more than 10 years. Of the total foreign born in the hills, 77.7 per cent were residing in the western and central hills where large urban centres such as Pokhara (western hills) and Kathmandu Valley towns (central hills) are located. The longer period of stay by the majority of the foreign born population reflects that most of them have acquired Nepalese citizenship and that the various censuses are unable to capture immigrants of shorter duration, including the floating population in urban areas and along the open border between Nepal and India.

3. Foreign born population in urban areas

A total of 86,465 foreign born person live in 33 towns in Nepal in 1991 (table 55). Of these, 73.7 per cent lived in *tarai* towns, 18.7 per cent in Kathmandu Valley towns and 7.6 per cent in hill

Figure 9. Foreign born population in Nepal by country of origin, 1991



Source: Table 53.

Table 54. Foreign born population by duration of stay, 1991

	Duration of stay								
	Less than 5 months	*6-11 months*	*1-5 years*	*6-10 years*	*11-15 years*	*16 years or more*	*Not stated*	*Total*	*Per cent*
Mountains	88	59	488	473	223	813	2 344	4 488	1.0
(per cent)	2.0	1.3	10.9	10.5	5.0	8.1	52.1	100.0	
Far Western	26	25	153	184	88	338	338	1 170	
Mid Western	6	2	13	8	5	17	97	148	
Western	0	0	2	5	5	50	92	154	
Central	26	15	147	136	41	124	579	1 068	
Eastern	30	17	173	140	84	284	1 220	1 948	
Hills	997	695	7 291	7 910	4 059	6 877	28 479	56 308	12.8
(per cent)	1.8	1.2	12.9	14.0	7.2	12.2	50.6	100.0	
Far Western	57	16	23	239	144	256	1 056	2 005	
Mid Western	82	70	547	532	332	456	1 477	3 496	
Western	439	331	3 116	3 045	1 549	2 591	10 743	21 859	
Central	282	199	2 539	3 267	1 463	2 611	11 508	21 869	
Eastern	137	79	852	827	526	963	3 695	7 079	

(Continued)

Table 54. *(continued)*

	Duration of stay								
	Less than 5 months	*6-11 months*	*1-5 years*	*6-10 years*	*11-15 years*	*16 years or more*	*Not stated*	*Total*	*Per cent*
Tarai	3 204	1 582	26 040	42 772	29 638	98 314	177 142	378 692	86.2
(per cent)	0.8	0.4	6.9	11.3	7.8	26.0	46.8	100.0	
Far Western	141	88	1 265	1 917	1 147	1 745	5 657	11 960	
Mid Western	184	178	1 912	2 945	1 936	6 135	12 362	25 652	
Western	614	232	5 444	7 298	4 825	15 522	26 636	60 571	
Central	1 113	383	8 598	16 112	11 164	44 495	82 151	164 016	
Eastern	1 152	701	8 821	14 500	10 566	30 417	50 336	116 493	
Total	4 289	2 336	33 819	51 155	33 920	106 004	207 965	439 488	100.0
(per cent)	1.0	0.5	7.7	11.6	7.7	24.11	47.3	100.0	

Source: CBS (1993a), vol. I, Part iv, table 15.

towns. Males are positively selected in hill and Kathmandu Valley towns, with sex ratios of 117.3 and 134.6, respectively. Indian females are predominant in *tarai* towns, with a sex ratio of 62.9 reflecting a high prevalence of marriage migration from across the Indian boarder. Almost 20 per cent of the total foreign born population in Nepal lived in urban areas in 1991 as against only 2.5 per cent in 1981. This shows the magnitude of the contribution of the foreign born population in Nepal to urban growth as well as to overall population growth.

Table 55. Foreign born population by country of birth and sex for towns, Nepal, 1991

				Country							
	Sex	*Total*	*Sex ratio*	*India*	*Pakistan*	*Bangladesh*	*Bhutan*	*Sri La. & Mald*	*Other Asian countries*	*European countries*	*Others*
Hill towns	Male	3 570		2 622	2	2	13	0	791	101	39
	Female	3 044	117.3	2 249	1	0	14	0	631	111	38
	Total	6 614 (7.6)									
Kath. Valley towns	Male	9 256		7 178	30	13	115	11	1 671	100	138
	Female	6 878		5080	24	18	111	9	1 396	92	148
	Total	16 134 (18.7)	134.6								
Tarai towns	Male	25 002		23 203	23	71	107	3	1 470	37	88
	Female	38 715		36 902	28	83	145	0	1 432	43	82
	Total	63 717 (73.71)	64.6								
Total	Male	37 828		33 003	55	86	235	14	3 932	238	265
	Female	48 637		44 231	53	101	270	9	3 459	246	268
Total		86 465 (100)	77.8	77 234 (89.3)	108 (0.1)	187 (0.2)	505 (0.6)	23 (0.03)	7 391 (8.5)	484 (0.6)	533 (0.6)

Source: CBS (1994c), urban table 14.

4. Foreign citizens in rural and urban areas

The 1961 census reported 110,061 foreign citizens in Nepal (table 56). Of that total, Indian citizens constituted 69.3 per cent, other Asians 7.2 per cent, and the unstated category 23.4 per cent. In 1971, Indian citizens constituted 94.4 per cent of the total foreign citizens in Nepal. The proportion of Indian citizens was reduced to only 24.2 per cent in 1981. Citizens of other Asian countries were only 1.6 per cent in 1981. A high proportion (74.2 per cent) of foreign citizens in 1981 was grouped in the other/unstated category. The number of foreign citizens recorded was more than the foreign born population recorded in 1981, which is a significant departure from all other censuses. By 1991, the number of foreign citizens had decreased substantially to 90,427 persons. Of these, 68,489 or 75.7 per cent were Indian citizens.

In urban areas only there were 32,435 foreign citizens, of which 81.7 per cent were Indian citizens (table 56). Foreign citizens living in urban areas constituted 35.9 per cent of the total foreign citizens in the country in 1991. The proportion male among foreign citizens was higher in urban areas (58.8 per cent) than at the national level (51.1 per cent). Almost 39 per cent of the Indian citizens lived in the urban areas, and two thirds lived in *tarai* towns and one quarter lived in Kathmandu Valley towns. Foreign citizens, especially Indians, primarily live in rural areas of the *tarai*.

5. Causes of migration

The control of malaria in the *tarai* and Inner *tarai* has been largely responsible for the hill migration into the *tarai*. The control of malaria was accompanied by a government policy of resettlement and the establishment of infrastructure and development activities because of locational advantage in the *tarai*. Gurung (1989:41-43) indicated that the lowlands favourable for highland migration constituted 65.3 per cent of cultivated area, 61.7 per cent of food grain production, 34.4 per cent of road mileage, and 62.5 per cent of industries.

The 1991 Census reported that 587,245 persons, or 89.2 per cent of all absentees, were in India and that 66.1 per cent of these went for employment. Over 73 per cent of the males went to India for employment.

Among the total India born immigrants reported by the 1981 census, 45.2 per cent immigrated for marriage (KC, *et al.*, 1991). Of those immigrating for marital reasons, females constituted 97.4 per cent. Among the foreign born population 10 years and over reported in the 1991 census, over 80 per cent were engaged in farming and fishing or sales and services.

Table 56. Foreign citizens in Nepal, 1961-1991

Country of citizenship	*1961*	*1971*	*1981*	*1991 (National)* *Male*	*Female*	*Total*	*1991 (Urban)* *Male*	*Female*	*Total*
India	76 311	128 829	116 755	35 363	33 126	68 489	15 700	10 785	26 485
%	69.3	94.4	24.2	(51.63)	(48.37)	75.7	(59.3)	(40.7)	81.7
China	7 973	7 184	7 678	2 725	3 670	6 395	757	713	1 470
%	7.2	5.3	1.6	(42.61)	(57.39)	7.1	(51.5)	(48.5)	4.5
Other countries		464	358 586	6 144	6 066	12 210	1668	1 472	3 140
%		0.3	74.2	(50.32)	(49.68)	13.5	(53.1)	(46.9)	9.7
Unstated	25 777			1 973	1 360	3 333	943	397	1 340
%	23.4			(59.2)	(40.8)	3.7	(70.4)	(29.6)	4.1
Total	110 061	136 477	483 019	46 205	44 222	90 427	19 068	13 367	32 435
Col. total (%)	100.0	100.0	100.0	(51.10)	(48.90)	100.0	(58.8)	(41.2)	100.0
% of total pop.	1.2	1.2	3.2			0.5			

Source: CBS (1967), vol. II, table 9; CBS (1975), vol. II, Part i, table 12; CBS (1984), vol. I, Part iii, table 11; CBS (1993a), vol. I, Part vi, table 21 and CBS (1994c) vol. II, Urban table.

Note: Numbers in parentheses refer to the percentage of male and female among foreign citizens in 1991.

6. Consequences of migration

The urban population of the *tarai* increased from 17.4 per cent of the total urban population in 1952/54 to 53.3 per cent in 1991. During this period, the urban population of the *tarai* grew by more than 8 per cent annually. The proportion of urban growth in the *tarai* between the 1981 and the 1991 censuses contributed by in-migration was 27.4 per cent. Out-migration might have helped to reduce population pressure on marginal land in the hills, but the shortage of labour during the peak agricultural season has led to low productivity and consequent malnutrition and hunger in the hills. On the other hand, increasing land prices in the *tarai* have increased the number of landless people (K.C., 1985).

The majority of international migrants coming to Nepal are engaged as skilled and semi-skilled workers in trade and service oriented professions. Higher skill levels and lower rates of wages are the main contributory factors causing the preferential employment of immigrants and the displacement of native workers. This has also retarded the process of new skill acquisition amongst Nepalese labourers.

Immigrants have a strong hold on the commercial and industrial sector. Indian contractors dominate in big contracts in governmental and non-governmental sectors because of their better organization, investment and entrepreneurial capacity.

A large number of immigrants work in urban areas as vendors, plumbers, electricians, carpenters, tailors, and barbers, and monopolize the informal sectors. Immigrants in urban areas have a strong hold on trade and commerce, even displacing Nepalese traders, and repatriate their income to India. In contrast, Nepalese in India have a limited capability to compete with Indians in the relatively more advanced Indian economic system.

The positive contribution of immigrants should also be acknowledged in manufacturing, transport, and export-based trade by importing useful technology and skills to fulfill various skill needs in Nepal. Their business entrepreneurship and extensive linkages in India and abroad are not matched by their Nepalese counterparts.

Emigration from Nepal to India has been influenced by differentials in the prospect of employment in unskilled jobs, prospects for repatriation of earning and remittances, and unrestricted rules of entry and exit. Indian immigration to Nepal is influenced by differential opportunity for employment, demand for skilled and semi-skilled manpower, small distances, low cost of transportation, unrestricted entry and exit, repatriation of earnings and closer affinity in religion, culture, language, and family ties (Weiner, 1985:441-445). Emigration from Nepal to India is mainly from the hills and the distance involved and the transportation cost is relatively greater. The hill emigrants are not similar to Indians in culture, language, and family ties. The difficulty of acculturation faced by Nepalese emigrants in India is greater than the ease with which Indian immigrants adapt to the socio-economic situation of Nepal, especially in the *tarai*.

N. POLICY ANALYSIS

1. Industrialization policies

Nepal had practically no industrialization prior to 1950. Some industries established during the 1930s were based on a very limited industrial infrastructure, such as rice husking, oil seed extraction, jute and tea processing and lumber mills. Of about two dozen industries established in the *tarai* region during 1936-1950, mainly jute, cigarette, match and sugar industries have survived.

In 1957, an Industrial Enterprises Act was enacted to develop a few cottage and small-scale industries. The Nepal Industrial Development Corporation (NIDC) was established in 1959 to promote and develop industries in the private sector through financial and technical support from the government.

A new Industrial Enterprises Act was promulgated in 1961. During the 1960s a very limited range of import substitution industries arose, in the public sector, producing consumer goods such as beverages, cigarettes, textiles, simple agricultural tools and building materials. By repealing the Act of 1961, another Industrial Enterprises Act was adopted in 1974 to establish import substituting industries. In 1982, a new Industrial Enterprises Act was promulgated that replaced the 1974 Act in order to promote and develop cottage and small-scale industries to expand employment opportunities for Nepalese labourers. Industries using foreign labourers could retain them for seven years, but they were to be replaced by Nepalese nationals after appropriate training. Only where trained national labourers were not available, could an enterprise employ foreigners for an additional period of five years. In 1987, the Industrial Enterprise Act of 1982 was amended to further encourage industrialization.

The 1982 amendment divided the country into three regions: developed, semi-developed and undeveloped. Higher incentives were provided to industries operating in undeveloped areas than in semi-developed. No incentives were provided to industries located in developed regions. The policy of the government was to discourage industries from locating in major urban areas such as Kathmandu, Biratnagar and Birgunj (MHPP, MSUD, 1990:11).

Major problems in the path of industrialization are the small size of the Nepalese market, the subsistence economy, and confinement of markets for consumer goods within the urban areas and in more accessible parts of the hills and the *tarai*. In addition, Nepalese goods must compete with Indian goods, which are generally cheaper and of better quality through economies of scale. Private interests are concentrated on trade, tourism and real estate, where returns on investments are more assured and attractive. Government policies of privatization and the development of private industries has only recently begun.

A review of the industrialization policy of Nepal indicates that there has been a tendency to protect the domestic industries more in the public than in the private sector by levying higher tariffs and embargoes on imports. Nepalese industrial policies focus on making Nepalese industries more cost effective by providing tax holidays and exchange facilities for importing raw materials.

The industrial policies focus on import substitution because local industries produce commodities needed for domestic consumption. In addition, the unavailability of skilled manpower within the country has led to the creation of employment opportunities for expatriates when industries were established.

Industrial development initiatives in the past led to the establishment of industrial districts in favourable locations in urban areas, such as Kathmandu, Lalitpur, Bhaktapur, Hetauda, Pokhara, Dharan, Nepalganj, Butwal and Birendranaganj. Creation of industrial estates also led to the establishment of small and medium-scale industries on the periphery of urban areas. There has been a gradual shift of interest in Nepalese industrial endeavour from the traditional sector to the modern one. As such, the contribution of agriculture to GDP has been substantially reduced from 90 per cent to less than 57 per cent within the last four decades (NPC, 1993).

The development of industrial centres encouraged rural-to-urban migration in many municipalities and small urban centres located along the highways.

The industrial sector of Nepal has not been greatly successful in creating employment. Cottage and small-scale industries have, however, been providing self-employment and some employment of others. Marketing has become a problem for small-scale industries.

Nepal aspires to achieve economic development based on agriculture through the process of industrialization by mobilizing labour, capital and natural resources available in the country. During the Eighth Plan (1992-1997), it aims to involve private participation for the promotion of development of industries by means of legal and administrative provisions.

Some of the industrialization policies of the Eighth Plan affecting the trends and patterns of rural-to-urban migration are to:

- minimize negative impacts of the establishment of industries on environment;
- provide incentives for dispersing industries and enterprises to various parts of the country, especially to undeveloped areas; and
- integrate urban development with infrastructure development with the objective of increasing economic and employment opportunities in the industrial sector.

The Government has recently started to encourage industrial enterprises to locate outside the Kathmandu Valley. The explicit impact of such a policy is to reduce or lessen the population pressure and environmental deterioration in the Kathmandu Valley. The process of industrialization helped to attract many people from rural areas of Nepal as well as from India. Industrialization led to the creation of employment opportunities in urban areas and increased wage rates, which have attracted many people from rural areas where marginal productivity is low and under-employment and absolute unemployment are high. The promotion of the carpet industry, through the provision of exchange facilities by the Government for wool imports, has helped in the location of carpet industries in urban centres. It has attracted migrants from rural areas for employment.

2. Migration policy

The 1983 National Population Strategy developed by the National Planning Commission (NPC) proposed to develop programmes to initiate a comprehensive and planned migration process within the hills, and from the hills to the *tarai* in view of the deteriorated environmental conditions in the hills. The Strategy proposed to control immigration to the *tarai*. In 1983, the NPC constituted a Task Force to recommend policy and programmes to regulate internal migration and control immigration. One of the recommendations submitted by the Task Force was to introduce a work permit system for foreign workers in Kathmandu and Bhaktapur. It, however, was not continued for political reasons.

The trends and patterns of rural-to-urban migration as well as international migration noted in this study raise several issues at the policy level. Internal migration is indicative of the immense disparity in development among regions and between rural and urban areas while international migration can be detrimental to the national interest.

(a) Policy issues for internal migration

The Constitution of Nepal provides the fundamental right for Nepalese citizens to free internal movement. Initially, out-migration from the hills was more directed outside the country. Internal migration from the resource-poor hills to the resource-rich *tarai* created a redistribution of population and resources within the country, thus slowing down the volume of emigration outside the country.

The first comprehensive population policy in Nepal was formulated in the Fifth Plan (1975-1980). The policy pronouncement included fertility control, regulation of internal migration, encouragement of migration to the western *tarai*, deliberate urbanization and immigration control. These policies were not pursued with concrete programmes, although some resettlement in the western *tarai* did take place. The Sixth Plan (1980-1985) included policies on regulation of internal migration and development of small towns, both of which did not materialize due to lack of programmes.

The problem of hill out-migration should be attacked at the source rather than at the destination. The policy goals related to influencing migration in the hills may be enumerated as development of small market towns and service centres accompanied by deliberate urbanization, creation of off-farm employment opportunities, commercialization of subsistence agriculture, and gradual elimination of economic dislocation, poverty, underemployment and unemployment. The integrated rural development approach to hill area development does not focus on the possibility of resettling the landless in the hills. Without such migration influencing policies, the *tarai* will have more landless people and squatters. The extent to which migration to the *tarai* can be regulated depends very much on what migration influencing policies can be adopted in the hills.

(b) Policy issues for international migration

Nepalese emigration to India has hindered Nepal's efforts to implement effective policies to control immigration from India. Emigration was primarily induced by the state apparatus through oppressive land and labour policies, agricultural indebtedness, and recruitment in the British Army. Although a majority of the army servicemen returned to Nepal, some settled in India to create Gorkha colonies. Emigrants spread over adjoining Darjeeling, Sikkim, and Bhutan as farmers, tea gardeners, and timber workers. Nepalese emigrants from the hills spread as far as Assam and northern Burma (now Myanmar). Many of the Nepalese emigrants to Burma returned after the Burmese Nationalization Act of 1964. The armed conflict for 'Gorkha land' campaign and expulsion of Indian citizens of Nepalese origin from Assam and Meghalaya have forced a sizeable number of long-time emigrants to return to Nepal. The problem of refugees from Bhutan recently settled in eastern Nepal is yet another dimension of the problem of migration.

In the 19th century, the Nepalese government deliberately invited Indian immigrants to the *tarai* for agricultural colonization. An extension of an Indian railway to the Nepalese border in the last decade of the 19th century brought Indian traders and businessmen. With the establishment of joint industrial ventures in the *tarai* in the 1930s, more Indian industrial labourers came to work. The existence of 3,000 km of open border between Nepal and India and the similarities in culture and tradition between the *tarai* ethnic groups and the people of northern India have made it extremely difficult to monitor and record immigration to Nepal.

(c) The international open border between Nepal and India

The border between Nepal and India was defined after the Anglo-Nepal War of 1814/16 and the Treaty of Sughauli. The legal basis for the open border was provided by the Indo-Nepal Treaty of Peace and Friendship signed in 1950 before the ousting of the Rana Regime. Article 6 of the Treaty provides "nationals of the other, in its territory, national treatment with regard to participation in industrial and economic development of such territory". Article 7 grants, "on a reciprocal basis, to the nationals of one country in the territory of the other the same privileges on the matter of residence, ownership of property, participation in trade and commerce, movement and other privileges of similar nature" and "afford[s] the Nepalese nationals in Nepal protection from unrestricted competition".

An open border has helped both countries to develop harmonious, socio-economic, cultural, and religious relationships through the years. Indian entrepreneurship and organizational skills, their extensive contacts abroad, and seasonal agricultural laborers in the *tarai* have all helped the Nepalese economy to some extent. A continued immigration from India, however, will create more pressure on available resources within the country and will harm the long-term national goals of meeting basic requirements in industry, trade, and construction sectors.

Any proposition to control the border between the two countries involves revision of the 1950 Treaty in a changed context. Bilateral arrangements on access regulations affecting both emigrants and immigrants seem to be more pragmatic for both countries.

3. Urbanization policy

The 1983 National Population Strategy called for a planned urbanization process in selected locations in the hill and the *tarai* regions. It proposed to speed up the process of urbanization by devising policies and programmes to promote the growth of small markets and growth centres. Promoting growth centres and area development, intensification of activities along major roads and encouragement of urbanization in backward regions were the policy pronouncements in the Fifth Plan (1975-1980). The Sixth Plan (1980-1985) re-emphasized intensification of activities along major roads, development of small towns and encouragement of urbanization. Urbanization policies in these plans were not translated into programmes. The Seventh Plan (1985-1990) for the first time devised detailed policies on urbanization.

(a) Urbanization policies in the seventh plan (1985-1990)

Urban growth in Nepal results partly from rural-to-urban migration and partly reclassification. Growth from 10 towns in 1952/54 to 33 towns with 1.7 million population at the end of the Seventh Plan period created tremendous pressure on the availability of urban services. Rapid urbanization, inadequate infrastructure and services leading to slum and squatter settlements, deteriorating physical environment and rising cost of living, with concomitant high cost of land and building material, seriously constrained the urban management system. Increasing rural-to-urban migration throughout the 1980s and early 1990s as a result of higher levels of unemployment and underemployment in the rural areas made it imperative to devise comprehensive urbanization policies. The number of inter-regional migrants to urban areas increased from 64,000 in 1971 to 155,000 in 1981 and to 292,000 in 1991. The absence of resource allocations targeted to the urban poor, and the lack of basic needs and services, makes it difficult to provide them with adequate solid waste collection and disposal facilities, with a wide gap between available resources and needs. Furthermore, deteriorating quality of housing, encroachment on agricultural land, and increasing numbers of squatters near rivers and swampy areas with inadequate drinking water, sanitation, electricity, and waste collection make it difficult to support the urban poor, who constitute 42 per cent of the total urban population in Nepal, (UNICEF, 1991:154).

The Seventh Plan of Nepal focused more on physical planning than on human development. The Plan aspired to complement rural and urban development programmes, promote employment opportunities and initiate urban development in a planned way. The major policies on urbanization included in the Seventh Plan were as follows:

a. Strengthen the role of municipalities in formulating and implementing urban development plans in a decentralized way at the local level;

b. Promote non-farm employment in urban areas in response to rapid growth of population and labour force;

c. Formulate short and long-term urban investment plans on the basis of available resources and capability for urban areas;

d. Develop urban development programmes capable of supporting economic development and services to the rural hinterland;

e. Mobilize local resources to make urban development programmes self-supporting;

f. Give special attention to solving urban environmental problems arising from the process of urbanization; and

g. Encourage private sector investment for urban development with emphasis on job creation and training with respect to human resources development as well as housing and land development.

The major strategic thrusts for urban development stated in the Seventh Plan were:

a. Functional classification of urban areas on the basis of situation, population size, urban functions, economic resources and development potential;

b. Greater role of municipalities for maximum utilization of local resources with provision of central level support and training in order to strengthen formulation and implemention of urban development programmes;

c. Reformation of local and central level institutional arrangements in urban areas in general and in greater Kathmandu in particular;

d. Formulation and implementation of physical and infrastructure development plans for all major towns of commercial and industrial importance;

e. Formulation of short and long-term investment programmes to encourage the participation of the private sector in order to maintain different types of urban services and facilities; and

f. Formulation of a specific programme to increase productive employment opportunities in the non-agricultural sector by incorporating governmental and non-governmental organizations, with emphasis on incentives to the private sector. These productive employment opportunities were to be supported by the provision of skill-oriented training programmes.

g. Planned development of regional development centres and evaluation of the growth potential of settlements along and across north-south and east-west highways for providing them with required services to attract and rehabilitate immigrants from the hills was also a goal of the Plan.

Despite such policies and strategies "the substantive and operational implications of the policies have not been explored" (Sharma, 1989:155). Moreover, urban development, industrialization, agriculture, social welfare and employment generation policies have not been coordinated. The linkages between urbanization, migration and development are lacking. In spite of policy pronouncements on urban development, an urban statistical data base is lacking and most policies are exploratory in nature.

(b) Institutional reform

Although some efforts have been made by the Government to allocate more funds for urban development by establishing the Town Development Fund Board (TDFB) in 1989, the priorities for allocating resources are not clear in terms of whether urban development constitutes physical development or human resources development or both. The Government in 1989 created the Ministry of Housing and Physical Planning (MHPP) to coordinate and manage development of urban areas. A new department of Housing and Urban Development was also formed under MHPP. MHPP was in charge of water supply, drainage, sanitation and solid waste disposal programmes. In 1989, His Majesty's Government (HMG) also created the Nepal Water Supply Corporation to look after all towns in matter of water supply. During the Seventh Plan, HMG created a separate Division of Urban Development under the Ministry of Local Development (MLD) to promote financial and administrative performance. HMG also created the Pokhara Urban Development Training Centre (PUDTC) for providing training to officials of municipalities.

(i) Strengthening the role of municipalities

To strengthen the role of municipalities in urban development, the following technical assistance programmes are ongoing:

a. United Nations Development Programme (UNDP) and the World Bank: Management support for urban development;

b. German Technical Assistance (GTZ): Urban development through local efforts;

c. The World Bank: Water and sanitation improvement in eight municipalities;

d. United States Agency for International Development; (USAID): Market Towns Programmes;

e. United Nations Centre for Human Settlements (UNCHS)/HABITAT: Training on shelter related issues;

f. The Town Development Fund: loans and grants for municipalities;

g. UNICEF/Ministry of Local Development: Providing basic services for the urban poor, reducing infant and child mortality and morbidity, promoting well-being of children and women by means of primary health care, literacy, income-generating activities, safe drinking water supply, and household and environmental sanitation.

(ii) Investment programmes for urban areas

Some initial steps in gathering data on expenditures and revenues of municipalities have been taken and some structural plans and infrastructure assessment reports have been completed. Municipalities are weak in formulating long-term investment programmes.

(iii) Urban programmes to support rural development

Some efforts have been focussed on the Service Centre Development Programme in constructing public buildings and infrastructure in service centres, although the selection criteria of the service centres and their linkages to rural marketing systems are not worked out.

(iv) Central-level support for local urban development

Lack of trained staff in MLD and MHPP and too much reliance on donor support have resulted in those ministries not being properly geared towards the provision of central-level support for local development programmes.

(v) Implementation of physical plan

The Ministry of Housing and Physical Planning has prepared structure plans for all municipalities. Additional actions are required to formulate planning laws, regulations and implementation status reports for implementing physical and infrastructure plans.

(vi) Regional centres

HMG has designated five regional development centres (Dhankuta, Kathmandu, Pokhara, Birendranagar and Dipayal). While Kathmandu and Pokhara are major economic nodes, the other three are merely administrative centres.

(vii) Planning of market centres along highways

Except for Kohalpur in the Mid-Western *tarai* region, no other centres have been identified.

(viii) Urban employment generation

No strategy exists for urban employment generation. Some programmes for generating income in cottage industries and small businesses are not yet implemented. This should have been a priority area of implementation. Problems have yet to be solved concerning the deteriorating urban environment. Promoting the private sector for employment generation has not been adequate.

(c) Objectives of the Eighth Plan (1992-1997)

Population policy under the Eighth Plan has the broad objective of establishing an adequate balance between population growth and socio-economic development and environment to fulfill basic human needs. Regulation of internal migration is one of the major strategies of the Eighth Plan.

The Eighth Plan acknowledges the fact that rapid population growth in Nepal will increase the population in urban areas and complicate the problem of migration. To solve this problem, the plan has the following strategies:

- Emphasize the development of the mountain and hill regions to reduce unrestricted migration in the Kathmandu Valley, large hill towns and *tarai* towns;
- Develop small towns at the meeting points of the Mahendra Highway and the north-south highways;

- Develop scattered settlements in the mountains and hills into densely populated settlements in order to provide basic services easily; and

- Undertake necessary studies and research on international migration and make population databases more reliable and scientific.

(i) The Eighth Plan document reiterated the following objectives:

- To promote urban development as a process complementary to rural development in view of the need to develop urban-rural inter-linkages as well as the need for balanced regional development;

- To promote planned development and management of urban areas by making the process of urbanization complementary to the development of the local economy;

- To increase the construction of new houses and to upgrade the quality of existing houses by making more land and financial resources available;

- To raise the investment capability of HMG by using local skills and materials, and adopt low-cost designs by improving construction technologies that would also create employment opportunities and support the local economy; and

- To improve the quality standard of government buildings for their protection against natural disasters such as earthquakes, floods, landslides, hurricanes, fire, etc.

(ii) The Eighth Plan policies were the following:

1. Devise appropriate policies and programmes to address the planned development of urban settlements and improve the environment.

2. Integrate urban development with infrastructure development for increasing economic and employment opportunities in the industrial sector.

3. Improve the relationship between towns and villages by the development of small townships and market centres.

4. Protect the environment in urban areas by formulating regulations for land use, waste disposal, and sanitation; enact laws for prevention of water and noise pollution; and provide investment funds to improve and develop existing infrastructure.

5. Protect and conserve places of historical, cultural and archaeological importance by adopting appropriate measures.

6. Involve communities from the very beginning in planned urban development.

7. Encourage non-governmental organizations and the private sector to invest in urban development programmes.

8. Devise land development programmes through private entrepreneurs and Housing Development Companies in order to provide housing plots to poor families in rural areas and residential land to families of different income groups in urban areas, with provision of basic physical and social facilities; and pursue unified settlement programmes.

9. Identify genuine landless households and provide them with housing plots from barren land, government forest areas, and the excess land obtained from the land ceiling imposed by the Land Reform Act.

10. Providing technical assistance to improve the quality of residential building in order to reduce construction cost.

11. Mobilize the financial resources of the private sector in an organized manner to invest in the housing sector.

In order to implement the above policies, the Government will provide municipalities with technical assistance under the recently enacted Municipality Act 1992. Municipalities are to be provided loan or grant assistance for implementing development-oriented infrastructure in urban areas.

Altogether 29 district headquarters are envisaged to be developed as business and service centres. The overall city environment is to be improved by assessing the current level of environmental pollution concerning sanitation, waste disposal, and air, water and noise pollution, in conformity with a planned land use pattern.

In order to improve the overall urban environment in an organized manner, the Government aims to provide settlement facilities to 25,000 families in coordination with the poverty alleviation programme in rural areas. Moving the people from environmentally unsuitable areas to other places would also require the provision of basic services, employment opportunities and social welfare.

It is almost impossible for the poor in low income groups in urban areas to buy housing plots for building purposes. The Government aims to circumvent these problems by developing low-cost housing land with minimum basic services in appropriate municipalities and district headquarters.

The Nepalese Government has acknowledged the necessity for urban road construction to manage increasing urbanization and to meet increasing traffic pressure in cities such as Kathmandu, Lalitpur, Biratnagar and Birgunj, with local participation. Kathmandu city is severely polluted, has uncontrolled congestion and is expanding rapidly. To circumvent this, the Government plans to reduce river pollution and to prevent adverse environmental conditions by exploring and improving roads along riversides. The present pace of urban development in Nepal is, however, inconsistent with sustainable development.

The Government also aims to revise existing laws relating to housing and land development in order to regulate the sale and purchase of land, construction of buildings, land tax, construction of houses for rent and ownership of multi-storied buildings.

(d) *Major problems and issues of urban development*

The major problems and issues within the urban areas are as follows:

a. A consistent urban database is lacking.

b. An inventory of small settlements of both rural and urban character is lacking.

c. There is ad hoc decision making in designating municipalities in terms of population size without considering their urban functions.

d. There is a lack of adequate data for analyzing different streams of migration, and absence of records on socio-economic causes and consequences of such migration.

e. There is an absence of detailed socio-economic and demographic characteristics of urban migrants and a lack of information on functional characteristics of spatial linkages of settlements.

f. There are insufficient employment data in the censuses, which mandates a reliance on aggregated survey data and precludes any detailed input to policy formulation.

g. Government policies ignore the impact of international migration in towns of Nepal, especially in the *tarai*. Urban growth is biased towards the Kathmandu Valley. Land dependent rural-to-urban migration in the *tarai* may be positive, but in the Kathmandu Valley the mismatch between physical urban development and human resources development limits urban growth in the Valley. A policy of induced migration to other towns may be positive in view of persisting poverty, out-migration, low resource potential and lack of development in the mountains and the hills. Spatial policies must go side by side with the structural transformation of the agricultural sector to induce urbanization in the *tarai*. Increased rural-to-urban migration means additional problems of a growing labour force of both migrants and non-migrants in urban areas.

4. Rural development policies

In Nepal, rural development and agricultural policies are interrelated because a majority of Nepalese people are involved in agricultural activities. Rural areas in Nepal have a subsistence economy with little dependence on the market. Thus rural development in Nepal means development of villages.

Rural development policy in Nepal has a history of four decades. In the early 1950s, a Village Development Model was adopted by the

Government to supply logistics and construction of infrastructure in the villages. During the First Plan period (1956-1961), the Rapti Valley Development Project (RVDP) was initiated and adopted an integrated approach to rural development. Its basic thrust was to resettle people from the mountains/hills to the valley of the Rapti River in the Chitwan area. In this project, roads, cooperative societies, and farming and irrigation systems were introduced to support the economic activities of natives and migrants living in the valley. During the First Plan period, 34 Rural Development and 12 Village Development Centres were established to create an institutional mechanism for operating rural development programmes in villages. During the Second Plan period (1962-1965) rural development was not emphasized.

In order to improve the man/land ratio, a land reform programme was adopted in 1964. The basic objectives of the programme were: (a) to have an equitable distribution of cultivable land, (b) to improve living standards of tillers by providing them tenancy rights and fixed rents, and (c) to divert resources from land to other areas of investment.

The land reform act was intended to bring about a more equitable distribution of land ownership but the numbers of small and marginal landholders and landless households have increased. Diversion of capital and human resources from land to other sectors could not be implemented. The land reform programme could not effect an appropriate man/land ratio in Nepalese agriculture.

During the Third Plan (1965-1970), the Panchayat Development Model emphasized institutional development and social mobilization, especially in remote and small-area development projects. Village panchayats were made responsible for carrying out the rural development programme. Traditional village leaders, however, tried to use the fruits of the rural development programme for their own benefit.

During the Fourth Plan (1970-1975), village development, area development and regional development approaches were introduced. The regional development approach was introduced to reduce disparity among the regions and effect rural development at the village level. During the Fifth Plan (1975-1980), emphasis was on integrated Rural Development Projects and Small Area Development Projects. The Agricultural Development Bank of Nepal carried out small farmers development projects in selected districts of the country to improve the conditions of the rural poor. This plan emphasized that the rural development approach should consider the physiographic differences in the country.

The Sixth Plan of Nepal (1980-1985) adopted a policy of integrated rural development based on a participatory approach. Cooperatives were regarded as means to achieve the goals. The Plan had the objectives to improve the purchasing power of the rural people on a self-reliant basis, to increase agricultural productivity, and to alleviate poverty in the rural areas. The Plan also pursued the land reform programme by fixing appropriate rents and by distributing Government land to the people. People's participation in decision making, priority for employment generation and fulfillment of basic needs were other features of rural development policies. The institutions to implement these policies were cooperatives and village panchayats. Because of involvement of local political leaders in both village panchayats and cooperatives, the village development approach could not bring about the desired changes in rural life. The rural institutions were more authoritative than democratic and did not lead to participation by the rural poor.

During the Seventh Plan (1985-1990), rural development was regarded as a part of regional development and decentralization policies. It was thought that only the decentralization of power from the centre to the local level would promote the rural development activities of the villages. Regional development policy was directed towards creating development centres and service centres at different levels on a functional basis. The policy of rural development during the Seventh Plan was much directed towards institutional reform and delivery of services to the rural areas.

One of the main objectives of Rural Development Policy under the Eighth Plan (1992-1997) will be to raise the living standards of the rural population. The major objectives of the Rural Development Policy during the Eighth Plan are:

- to improve the economic and social conditions of backward regions;
- to make rural families self-reliant by improving their socio-economic conditions;
- to upgrade the socio-economic status of the rural and backward communities; and
- to create a base for sustainable development by increasing peoples' participation in rural development works, with the provision of basic infrastructure and employment opportunities.

The programmes to meet these objectives are:

- increase active participation of local bodies and develop rural infrastructure such as rural transportation, irrigation, water-supply, school buildings, health-posts and small hydro-electric projects;
- increase productivity of production, generate income and employment opportunities, and mobilize available resources, skills and technology in order to fulfill the basic needs of the local people;
- launch special socio-economic programmes for the well-being of socially and economically weaker sections of the rural population, ethnic tribes and women (District-level line agencies and project offices are to be instructed to set compulsory targets that can directly benefit the deprived members of the community while preparing the annual development programme);
- integrate the women's development programmes with the programme of District Development Committees and women's self-reliance institutions;
- encourage non-governmental organizations to participate in programmes that will directly benefit the target groups by making programmes complementary to each other;
- provide necessary manpower, resources, and technical support to local bodies by strengthening existing training centres in order to enable them to effectively implement and manage development programmes;
- carry out local level programmes with due consideration to environmental conservation;
- increase production, productivity and employment opportunities by exploring and making use of local resources and technologies;
- provide a block grant to explore and make use of appropriate technology for local development work on the basis of appropriate criteria and the availability of local resources;
- increase the motivation of field staff by training them and making their careers secure; and
- update the collection and processing of local data in order to formulate district-level programmes according to local needs.

The Government, during the Eighth Plan, aims to increase the earning capacity of women and raise their status both socially and economically with the help of various non-governmental organizations and international donors such as UNFPA, UNICEF, ADB, USAID, CIDA, GTZ, EEC and FAO. Some of the major programmes to raise the status of women involve them in skill-oriented training, drinking water projects, irrigation projects, literacy programmes, construction and renovation programmes and training in health, nutrition, population education and family welfare.

Programmes to enhance the socio-economic condition of backward and tribal communities are to be launched within the context of rural development programmes. In urban areas, poor women and children are the targets in such programmes as primary education and health services; improvement of sewerage, drinking water and sanitation facilities; community building; and training in sewing and knitting. The Government seeks to develop urban and rural areas as complementary to each other.

The Eighth Plan, under the regional development policy, proposes to develop financial interrelationships between different regions and sub-regions, and rural and urban areas by encouraging the development of a functional hierarchy of urban settlement. It also aims to take necessary steps towards developing urban areas in a planned manner at suitable locations along the Mahendra Highway and north-south link roads in the context of increasing urbanization so that small towns in suitable locations could be developed to support rural development.

The lack of trickle-down effects in rural development has led to a dualistic situation in rural areas. Infrastructure was created, institutions were established, and branches of different government organizations were established but the delivery of goods and services did not reach the rural people.

The reasons for the multiplicity of programmes of rural development are a heavy dependence on foreign aid and a lack of indigenous models. As the different line agencies were not coordinated, rural development programmes lagged far behind the stated targets of implementation.

An impact of rural development policy should be to check the out-migration of rural people through the creation of economic activities and employment opportunities in rural areas. However, with little change in the rural economy, the impact of rural development policies on migration have not been significant. Rural development could not cope with the growth rate of rural population. Consequently, out-migration of rural people, either to other rural areas or to urban areas, especially of the young, the economically active, and the educated, has been taking place on a large scale. Rural development efforts have created some service centres which have become urban centres, to which some rural people have migrated.

A review of rural development policies in Nepal and their implications for rural-to-urban migration shows that the high population growth rate, marginal resource base and over-utilization of natural resources have reduced the capacity of rural areas to sustain people.

Because of frequent changes in rural development policy and a heavy dependence on the Government without local participation and motivation, the rural development efforts of the Government have not been effective. This may be a main reason for people flocking into the urban areas.

O. POLICY RECOMMENDATIONS

1. Industrialization policies

Industrialization in Nepal has so far emphasized establishing more industries rather than considering the impact of such industrialization on spatial and human resources development. It is now essential to consider the following recommendations in relation to rural-to-urban migration.

a. There is now less scope for the concentration of industries in Kathmandu Valley, where the urban support services are poor. Industries should be located in urban centres where industrial activities do not exist.

b. The approach to industrialization should be based on labour-intensive technology and establishing industries where more females can participate.

c. The growing small urban centres are to be encouraged by the Government through easily available support services.

d. In rural areas, small-scale industries based on rural human and physical resources are to be developed.

e. Efforts should be made to maintain regional balance in industrialization.

f. Industrial estates should be established for making maximum use of integrated infrastructure for industrialization.

g. The negative impacts of industries on the environment should be minimized.

2. Migration policies

Migration policy recommendations emphasize the sustainability of development in both rural and urban areas by striking a balance between population and resources.

a. Devise effective means to regulate internal migration by identifying additional areas for resettlement in both the mountains/hills and in the mid-western and far-western *tarai*.

b. Divert migrants from such larger towns as Pokhara, Lalitpur, Biratnagar, and Kathmandu by promoting development in nearby small towns and their periphery.

c. Provide loans and tax incentives to new industries locating in places where sufficient people can be attracted, in order to diffuse social services from the core urban area.

d. Devise socio-economic means to discourage immigration. Development of indigenous skills to replace foreign labour is essential.

e. Migration surveys should be taken at regular intervals to determine changes in and consequences of migration.

f. Mountain and hill regions should be developed so as to decrease migration originating from there.

g. Scattered settlements in hill and mountain areas should be developed into densely populated areas to make it easier to provide basic services.

3. Urbanization policies

Urban development policy should focus on encouraging the growth of small urban and market centres to relieve population pressure on rural areas. It should emphasize the development of complementary relationships between urban and rural areas, with increased employment opportunities.

a. Encourage the growth of small urban and market centres along the East-West Highway and selected north-south roads in order to channel internal migration by promoting off-farm employment opportunities.

b. Devise proper land use zoning in urban areas to discourage overcrowding and environmental pollution. The urban management capacity of all urban areas of Nepal should be strengthened.

c. Promote the development of small and medium-sized towns, which can be managed properly in terms of sewerage, waste disposal, garbage collection, industrial waste, water and electricity supply, drainage, communication, and social services.

d. Provide more employment opportunities to migrants in small and medium-sized towns.

e. Increase the income of the poorest and most disadvantaged groups, especially women, in both urban and rural areas.

f. Develop a public housing system in designated places in urban areas in order to provide social services and urban functions more easily.

g. Housing facilities should be made available to a maximum number of people.

h. Housing plots should be made available to landless households.

i. Suitable measures should be taken to make housing loans to those without housing facilities and to housing development companies.

4. Rural development policies

The issues of rural-to-urban migration in Nepal can be addressed as follows.

a. Rural entrepreneurs should be promoted in the marketing of agricultural output and delivering it to consumers.

b. Develop complementary non-agricultural activities in rural areas and linkages between rural and urban areas.

c. Public investment should be directed toward creating infrastructure and investment should be invited from the private sector to increase the productivity of rural areas.

d. Rural development programmes should be carried out with the active participation of local bodies.

e. Employment opportunities should be increased with the maximum mobilization of available resources.

f. Non-governmental organizations should be encouraged to participate in programmes that will directly benefit the target groups.

g. Arrangements should be made for the career development of field-level staff.

h. Collection of local-level data should be strengthened to assist the formulation of district-level programmes.

i. Local programmes should be carried out with due consideration to environmental conservation.

5. Recommendations for further research

a. The explicit relationship between migration and urbanization on urban employment and social services needs to be assessed.

b. The consequences of internal migration in the hills and the *tarai*, as well as of rural-to-urban migration, have to be studied more comprehensively.

c. An analysis of the impact of emigration from the hills and immigration to the *tarai* is essential to assess the importances of remittances by emigrants and job displacement by immigrants in various sectors.

d. The impact of immigration on local economies and identification of areas of competition and complementarity between immigrants and Nepalese should also be studied.

f. An evaluation of Goverment policies in the areas of industry, labour, trade, citizenship, land and immigration, employment, land use, resettlement, and population, and the gap between policies and implementation also require further research.

g. The forthcoming demographic household survey should include pertinent questions on the consequences of rural-to-urban migration and its impact on urban poverty, income, employment, environment, and status of women.

Appendix 1. Percentage distribution of male migrants by reason for migration, for streams and age groups, 1986/87

Age group	*Marital*	*Dependent*	*Education*	*Service*	*Trade/ Com.*	*Agriculture*	*Seeking Job*	*Others*	*Unknown*	*Total*	*Population*
					Rural-to-rural						
0-9	2.40	94.30	3.30	-	-	-	-	-	-	100.0	213
10-19	0.90	90.60	3.70	3.00	-	-	0.90	0.90	-	100.0	460
20-29	2.30	69.80	2.10	7.70	1.30	5.40	5.60	5.20	0.60	100.0	480
30-39	2.00	37.40	0.70	11.80	4.60	18.60	14.40	10.30	0.20	100.0	457
40-49	2.40	24.20	0.60	4.60	3.70	29.40	20.80	12.80	1.50	100.0	327
50-59	0.90	14.20	2.70	2.30	3.20	40.60	21.50	13.70	0.90	100.0	219
60+	0.50	19.90	0.50	2.00	3.00	46.80	11.40	13.90	2.00	100.0	201
Total	1.60	54.00	2.00	5.50	2.20	16.60	10.00	7.50	0.60	100.0	2 357
	(40)	(1 273)	(46)	(129)	(52)	(390)	(235)	(176)	(16)		
					Urban-to-rural						
0-9	-	100.0	-	-	-	-	-	-	-	100.0	5
10-19	-	95.00	-	5.00	-	-	-	-	-	100.0	20
20-29	10.50	68.40	10.50	-	-	-	5.30	5.30	-	100.0	19
30-39	3.20	25.80	-	29.10	16.20	3.20	16.10	3.20	3.20	100.0	31
40-49	5.90	29.40	-	17.60	11.80	11.90	11.80	5.80	5.90	100.0	17
50-59	6.70	20.00	-	6.70	20.00	33.30	6.60	6.70	-	100.0	15
60+	-	16.60	-	16.70	33.30	16.80	16.60	-	-	100.0	12
Total	4.20	46.20	1.70	13.40	11.80	8.40	9.20	3.40	1.70	100.0	119
	(5)	(55)	(2)	(16)	(14)	(10)	(11)	(4)	(2)		
					Rural-to-urban						
0-9	-	97.00	-	-	-	-	-	3.00	-	100.0	33
10-19	1.60	72.20	11.10	8.70	-	-	5.60	-	0.80	100.0	126
20-29	1.90	48.30	12.60	18.40	2.90	2.40	10.10	2.40	1.00	100.0	207
30-39	1.80	29.90	3.00	18.60	8.40	9.00	18.60	9.60	1.10	100.0	167
40-49	3.40	22.00	-	17.80	1.80	27.10	16.10	9.30	2.50	100.0	118
50-59	0.00	10.10	2.30	12.50	5.70	36.40	12.50	14.80	5.70	100.0	88
60+	-	19.00	0.00	4.80	11.10	34.90	4.80	17.50	7.90	100.0	63
Total	1.60	39.90	5.90	14.30	4.20	13.20	11.50	7.10	2.20	100.0	802
	(13)	(320)	(47)	(115)	(34)	(106)	(92)	(57)	(18)		
					Urban-to-urban						
0-9	-	100.0	-	-	-	-	-	-	-	100.0	13
10-19	-	77.4	12.9	3.2	3.2	-	-	-	3.30	100.0	31
20-29	-	55.8	14.0	18.6	9.3	-	-	2.3	-	100.0	43
30-39	-	32.4	8.8	29.4	14.7	2.9	8.8	3.0	-	100.0	34
40-49	4.2	16.7	12.5	25.0	16.7	12.5	8.3	4.1	-	100.0	24
50-59	-	21.7	8.8	21.7	17.4	4.3	8.7	13.0	4.4	100.0	23
60+	-	23.1	-	-	15.4	38.5	-	23.0	-	100.0	13
Total	0.6	46.4	9.9	16.6	11.0	5.5	3.9	5.0	1.10	100.0	181
	(1)	(84)	(18)	(30)	(20)	(10)	(7)	(9)	(2)		

Source: CBS (1987b)

Note: Figures in parentheses refer to numbers of cases.

Appendix 2. Percentage distribution of female migrants by reasons for migration, for streams and age groups, 1986/87

Age group	*Marital*	*Dependent*	*Education*	*Service*	*Trade/ Com*	*Agriculture*	*Seeking Job*	*Others*	*Unknown*	*Total*	*Population*
					Rural-to-rural						
0-9	3.50	95.30	-	-	-	-	0.60	-	0.60	100.0	171
10-19	60.60	38.30	0.70	-	-	-	-	0.30	0.10	100.0	761
20-29	88.10	11.00	0.10	0.10	-	0.00	0.20	0.40	0.10	100.0	1 804
30-39	81.70	17.20	0.10	-	0.10	0.20	-	0.50	0.20	100.0	1 340
40-49	79.00	18.50	0.40	0.20	0.40	0.60	0.40	0.40	0.10	100.0	975
50-59	80.40	17.70	-	-	-	0.90	-	0.80	0.20	100.0	665
60+	71.80	24.60	0.50	-	0.30	1.30	0.30	1.00	0.20	100.0	634
Total	77.40	21.10	0.30	0.10	0.10	0.30	0.20	0.50	0.20	100.0	6 350
	(4 912)	(1 337)	(16)	(5)	(7)	(22)	(10)	(31)	(10)		
					Urban-to-rural						
0-09	-	100.0	-	-	-	-	-	-	-	100.0	8
10-19	46.70	50.00	3.30	-	-	-	-	-	-	100.0	30
20-29	81.50	17.30	-	1.20	-	-	-	-	-	100.0	81
30-39	79.70	18.80	-	-	-	-	-	1.50	-	100.0	69
40-49	69.40	26.50	-	2.00	-	-	-	-	2.10	100.0	49
50-59	66.70	33.30	-	-	-	-	-	-	-	100.0	24
60+	88.50	11.50	-	-	-	-	-	-	-	100.0	26
Total	72.60	25.80	0.30	0.70	-	-	-	0.30	0.30	100.0	287
	(208)	(74)	(1)	(2)				(1)	(1)		
					Rural-to-urban						
0-9	4.20	95.80	-	-	-	-	-	-	-	100.0	24
10-19	41.20	51.60	4.20	1.80	-	-	1.20	-	-	100.0	165
20-29	75.20	21.10	0.70	1.00	-	-	1.00	-	1.00	100.0	298
30-39	72.20	25.70	-	-	-	0.40	1.70	-		100.0	230
40-49	59.70	36.80	0.50	0.50	0.50	0.50	1.00	-	0.50	100.0	204
50-59	53.80	43.00	-	-	1.10	-	1.10	-	1.00	100.0	93
60+	47.10	50.00	-	-	-	0.90	1.00	1.00	-	100.0	102
Total	60.80	35.50	0.90	0.60	0.20	0.30	1.20	0.10	0.40	100.0	1 116
	(679)	(396)	(10)	(7)	(2)	(3)	(13)	(1)	(5)		
					Urban-to-urban						
0-9		100.0	-	-	-	-	-	-	-	100.0	18
10-19	33.30	63.60	-	3.10	-	-	-	-	-	100.0	33
20-29	77.10	21.70	-	1.20	-	-	-	-	-	100.0	83
30-39	89.30	7.10	-	3.60	-	-	-	-	-	100.0	56
40-49	67.40	32.60	-	-	-	-	-	-	-	100.0	43
50-59	70.80	25.00	-	-	-	-	-	4.20	-	100.0	24
60+	89.50	10.50	-	-	-	-	-	-	-	100.0	20
Total	68.20	30.00	-	1.40	-	-	-	0.40	-	100.0	277
	(189)	(83)		(4)				(1)			

Source: CBS (1987b).

Note: Figures in parentheses refer to numbers of cases.

Appendix 3. Percentage distribution of rural-to-rural migrants by marital status, for sex and age groups, 1986

Age group	*Not married*	*Married*	*Widow*	*Others*	*Total*
		Male			
15-19	80.3	17.1	-	2.6	100 (228)
20-24	45.6	50.7	0.9	2.8	100 (217)
25-29	14.6	83.5	-	1.9	100 (260)
30-34	4.0	93.5	1.2	1.3	100 (247)
35-39	1.5	97.0	0.5	1.0	100 (207)
40-44	1.0	94.3	4.2	0.5	100 (192)
45-49	0.8	95.5	3.0	0.7	100 (135)
50-54	2.8	92.3	4.2	0.7	100 (142)
55-59	1.3	91.9	5.4	1.4	100 (74)
60+	-	76.2	21.8	3.0	100 (202)
Total	17.9	76.7	3.1	2.2	100
	(341)	(1 461)	(72)	(30)	(1 904)
		Female			
15-19	20.4	77.2	0.7	1.7	100 (554)
20-24	2.7	95.2	0.6	1.5	100 (932)
25-29	1.3	96.4	1.3	1.0	100 (858)
30-34	0.1	97.4	1.6	0.9	100 (696)
35-39	0.8	93.8	4.3	1.1	100 (635)
40-44	0.2	89.5	9.6	0.7	100 (513)
45-49	0.5	82.2	16.0	1.3	100 (456)
50-54	1.0	72.7	24.2	2.1	100 (380)
55-59	0.4	65.5	32.0	2.1	100 (278)
60+	0.8	35.9	61.5	1.8	100 (623)
Total	2.8	83.2	11.9	22.1	100
	(168)	(4 932)	(745)	(80)	(5 925)

Source: CBS (1987b).

Note: Figures in parentheses refer to numbers of cases.

Appendix 4. Percentage distribution of urban-to-rural migrants by marital status, for sex and age groups, 1986

Age group	*Not married*	*Married*	*Widow*	*Others*	*Total*
		Male			
15-19	100.0	-	0.0	-	100 (8)
20-24	83.3	16.7	0.6	-	100 (6)
25-29	30.8	69.2	1.3	-	100 (13)
30-34	-	94.7	1.6	-	100 (19)
35-39	8.3	91.7	4.3	-	100 (12)
40-44	-	100.0	9.6	-	100 (13)
45-49	-	100.0	16.0	-	100 (4)
50-54	-	100.0	24.2	-	100 (10)
55-59	-	80.0	32.0	20.0	100 (5)
60+	-	58.3	61.5	-	100 (12)
Total	17.6 (18)	75.5 (77)	5.9 (6)	1.0 (1)	100 (102)
		Female			
15-19	28.6	71.4	-	-	100 (21)
20-24	2.4	97.6	-	-	100 (42)
25-29	5.1	92.3	2.6	-	100 (39)
30-34	-	97.7	2.3	-	100 (44)
35-39	-	84.0	16.0	-	100 (25)
40-44	3.4	86.2	10.4	-	100 (29)
45-49	5.0	70.0	25.0	-	100 (20)
50-54	-	78.6	14.3	7.1	100 (14)
55-59	-	80.0	20.0	-	100 (10)
60+	-	16.0	84.0	-	100 (25)
Total	4.1 (11)	81.0 (218)	14.5 (38)	0.4 (2)	100 (269)

Source: CBS (1987b).

Note: Figures in parentheses refer to numbers of cases.

Appendix 5. Percentage distribution of rural-to-urban migrants by marital status, for sex and age groups, 1986

Age group	*Not married*	*Married*	*Widow*	*Others*	*Total*
		Male			
15-19	88.7	7.5		3.7	100 (80)
20-24	56.6	43.4			100 (106)
25-29	23.0	76.0	1.0		100 (100)
30-34	5.0	92.3		2.2	100 (91)
35-39		100.0			100 (75)
40-44	3.2	93.6	1.6	1.6	100 (63)
45-49	1.9	96.2		1.9	100 (53)
50-54	3.3	91.8	1.6	3.3	100 (61)
55-59	3.7	88.9	3.7	3.7	100 (27)
60+	1.6	76.2	22.2		100 (63)
Total	123.1 (166)	73.0 (525)	2.5 (17)	1.5 (11)	100 (719)
		Female			
15-19	29.2	64.6		6.2	100 (113)
20-24	9.3	89.5		1.2	100 (162)
25-29	1.5	97.0	0.8	0.7	100 (132)
30-34	0.8	96.6	2.5	-	100 (118)
35-39	-	94.6	1.8	1.8	100 (112)
40-44	1.7	87.3	8.5	2.5	100 (118)
45-49	2.4	72.3	25.3	-	100 (83)
50-54	2.0	73.0	23.1	1.9	100 (52)
55-59	2.5	57.5	35.0	5.0	100 (40)
60+	-	38.4	59.6	2.0	100 (99)
Total	5.2 (57)	80.5 (828)	12.1 (124)	1.9 (20)	100 (1 029)

Source: CBS (1987b).

Note: Figures in parentheses refer to numbers of cases.

Appendix 6. Percentage distribution of urban-to-urban migrants by marital status, for sex and age groups, 1986

Age group	*Not married*	*Married*	*Widow*	*Others*	*Total*
		Male			
15-19	94.4	5.6	-	-	100 (18)
20-24	63.6	31.8	-	4.6	100 (22)
25-29	19.0	76.2	-	4.8	100 (21)
30-34	-	77.8	5.5	-	100 (18)
35-39	16.7	93.8	-	6.2	100 (16)
40-44	-	100.0	-	-	100 (15)
45-49	-	100.0	-	-	100 (9)
50-54	-	100.0	-	-	100 (14)
55-59	11.1	88.9	-	-	100 (9)
60+		76.9	23.1	-	100 (13)
Total	25.2 (39)	71.0 (109)	2.6 (4)	1.0 (1)	100 (155)
		Female			
15-19	58.3	41.7			100 (24)
20-24	13.1	84.2		2.7	100 (38)
25-29	4.4	95.5			100 (45)
30-34		96.8	3.2		100 (31)
35-39	4.0	84.0	12.0		100 (25)
40-44		89.3	10.7		100 (28)
45-49		80.0	20.0		100 (15)
50-54		63.6	18.2	18.2	100 (11)
55-59		61.5	38.5		100 (13)
60+		30.0	70.0		100 (20)
Total	8.8 (22)	77.6 (194)	12.4 (29)	1.2 (5)	100 (250)

Source: CBS (1987b).

Note: Figures in parentheses refer to numbers of cases.

Appendix 7. Classification of economically active rural-to-rural migrant population by occupation, 1986/87

Age group	*Prof/Adm.*	*Sales/Serv.*	*Produc.*	*Agri.*	*Others*	*Not stated*	*Total*
			Male				
10-14	-	38.7	1.6	30.7	11.3	17.8	100 (62)
15-19	-	44.6	-	39.3	2.7	13.4	100 (112)
20-24	1.7	46.6	4.0	42.6	2.8	2.3	100 (176)
25-29	4.4	48.2	2.0	42.6	-	2.8	100 (249)
30-34	2.1	46.1	3.7	47.3	0.4	0.4	100 (243)
35-39	4.4	43.5	1.9	48.3	0.5	1.4	100 (207)
40-44	1.6	36.6	2.6	58.1	0.6	0.5	100 (191)
45-49	1.5	29.9	2.2	65.7	0.7	-	100 (134)
50-54	3.5	32.9	1.4	59.4	-	2.8	100 (143)
55-59	2.7	27.4	-	63.0	4.1	2.8	100 (73)
60+	3.7	16.5	-	61.2	16.0	2.6	100 (188)
Total	2.6	38.6	2.0	58.9	2.9	3.0	100
	(47)	(686)	(36)	(904)	(52)	(53)	(1 778)
			Female				
10-14	-	26.8	-	36.6	7.1	29.5	100 (71)
15-19	-	16.8	2.0	69.7	2.3	9.2	100 (304)
20-24	0.1	16.3	1.7	75.8	1.3	4.8	100 (541)
25-29	0.6	18.5	1.3	75.8	0.6	3.2	100 (475)
30-34	0.3	17.1	2.4	76.7	-	3.5	100 (369)
35-39	0.6	15.4	1.6	80.2	0.8	1.4	100 (364)
40-44	-	13.5	1.4	83.5	-	1.6	100 (296)
45-49	0.3	10.8	1.1	85.8	1.0	1.0	100 (288)
50-54	0.4	12.0	0.8	82.1	1.6	3.1	100 (251)
55-59	0.6	9.3	0.6	77.8	4.9	6.8	100 (162)
60+	-	5.4	0.7	53.7	33.7	6.5	100 (428)
Total	0.3	14.2	1.4	74.4	5.2	4.5	100
	(10)	(504)	(49)	(2 639)	(184)	(163)	(3 549)

Source: CBS (1987b).

Note: Figures in parentheses refer to numbers of cases.

Appendix 8. Classification of economically active urban-to-rural migrant population by occupation, 1986/87

Age group	*Prof/Adm.*	*Sales/Serv.*	*Produc.*	*Agri.*	*Others*	*Not stated*	*Total*
			Male				
10-14	-	50	-	-	50	-	100 (2)
15-19	-	75	-	25	-	-	100 (4)
20-24	-	100	-	-	-	-	100 (4)
25-29	-	58.3	-	33.3	8.4	-	100 (12)
30-34	-	83.3	-	16.7	-	-	100 (18)
35-39	9.1	45.5	9.1	36.3	-	-	100 (11)
40-44	-	53.8	-	46.2	-	-	100 (13)
45-49	25.0	75.0	-	-	-	-	100 (4)
50-54	-	70.0	-	30.0	-	-	100 (10)
55-59	-	40.0	-	40.0	-	20.0	100 (5)
60+	9.1	54.5	-	9.1	27.3	-	100 (11)
Total	3.2	63.8	1.1	25.5	5.3	1.1	100
	(3)	(60)	(1)	(24)	(5)	(1)	(94)
			Female				
10-14	-	-	-	-	-	-	100 (0)
15-19	-	33.4	33.3	33.3	-	-	100 (3)
20-24	-	35.3	5.9	58.8	-	-	100 (17)
25-29	9.1	36.4	-	54.5	-	-	100 (11)
30-34	-	33.3	13.3	53.4	-	-	100 (15)
35-39	9.1	9.1	-	81.8	-	-	100 (11)
40-44	-	30.8	-	61.5	-	7.7	100 (13)
45-49	-	25	25	50	-	-	100 (4)
50-54	-	-	-	100	-	-	100 (6)
55-59	-	25	-	75	-	-	100 (4)
60+	-	7.7	-	38.5	46.1	7.7	100 (13)
Total	2.1	24.7	5.2	59.8	6.2	0.2	100
	(2)	(24)	(5)	(58)	(6)	(2)	(97)

Source: CBS (1987b).

Note: Figures in parentheses refer to numbers of cases.

Appendix 9. Classification of economically active rural-to-urban migrant population by occupation, 1986/87

Age group	*Prof/Adm.*	*Sales/Serv.*	*Produc.*	*Agri.*	*Others*	*Not stated*	*Total*
				Male			
10-14	-	22.2	22.2	22.2	-	33.4	100 (9)
15-19	3.0	48.5	6.1	12.1	12.1	15.2	100 (33)
20-24	4.6	60	6.2	24.6	1.5	3.1	100 (65)
25-29	5.4	61.3	4.3	23.7	4.3	1.0	100 (93)
30-34	2.2	70.7	4.3	19.6	-	3.3	100 (92)
35-39	2.6	57.3	8.0	29.3	1.3	1.3	100 (75)
40-44	1.6	60.3	1.6	34.9	-	1.6	100 (63)
45-49	2.0	37.5	3.9	52.9	1.8	1.9	100 (51)
50-54	6.6	34.4	-	57.4	1.6	-	100 (61)
55-59	11.1	22.2	7.4	48.1	3.7	7.4	100 (27)
60+	6.8	28.8	1.7	52.5	10.2	-	100 (59)
Total	4.2 (26)	51.4 (323)	4.5 (28)	33.8 (212)	3.0 (19)	3.1 (20)	100 (628)
				Female			
10-14	-	35.7	7.2	28.6	-	28.5	100 (14)
15-19	-	28.6	4.1	53.1	2.0	12.2	100 (49)
20-24	2	18	4	64	-	12	100 (50)
25-29	-	18.3	13.3	63.3	1.7	3.4	100 (60)
30-34	-	30	2	66	-	2	100 (50)
35-39	-	21.7	4.4	71.7	-	2.2	100 (46)
40-44	1.7	18.3	3.3	71.7	-	5	100 (60)
45-49	-	15.4	2.6	79.5	-	2.5	100 (39)
50-54	-	16.1	6.5	64.5	9.7	3.2	100 (31)
55-59	-	12.5	-	62.5	25	-	100 (16)
60+	-	12.5	1.4	23.6	50	12.5	100 (72)
Total	0.4 (2)	19.9 (97)	4.5 (22)	58.9 (287)	9.3 (45)	7.0 (34)	100 (487)

Source: CBS (1987b).

Note: Figures in parentheses refer to numbers of cases.

Appendix 10. Classification of economically active urban-to-urban migrant population by occupation, 1986/87

Age group	*Prof/Adm.*	*Sales/Serv.*	*Produc.*	*Agri.*	*Others*	*Not stated*	*Total*
			Male				
10-14	-	-	-	-	-	-	100 (-)
15-19	-	100	-	-	-	-	100 (2)
20-24	-	66.7	-	16.7	8.3	8.3	100 (12)
25-29	10.5	78.9	5.3	-	-	5.3	100 (19)
30-34	20	73.3	6.7	-	-	-	100 (15)
35-39	6.3	81.3	-	12.4	-	-	100 (16)
40-44	-	73.3	-	13.2	13.3	-	100 (15)
45-49	-	55.6	-	22.2	22.2	-	100 (9)
50-54	30.8	46.2	-	15.4	-	7.6	100 (13)
55-59	12.5	75	12.5	-	-	-	100 (8)
60+	-	16.7	-	41.7	33.3	8.3	100 (12)
Total	9.1 (11)	65.3 (79)	2.5 (3)	12.4 (15)	7.4 (9)	3.3 (4)	100 (121)
			Female				
10-14	-	50	-	-	-	50	100 (2)
15-19	-	75	25	-	-	-	100 (4)
20-24	-	50	16.5	16.5	-	17	100 (6)
25-29	12.5	37.5	12.5	25	-	12.5	100 (8)
30-34	18.2	45.5	9.1	27.2	-	-	100 (11)
35-39	20.0	60.0	-	20.0	-	-	100 (5)
40-44	50.0	33.3	-	-	16.7	-	100 (6)
45-49	-	2.5	-	2.5	2.5	2.5	100 (4)
50-54	20.0	20.0	-	40.0	-	20.0	100 (5)
55-59	-	40.0	-	40.0	20.0	-	100 (5)
60+	-	10.0	-	20.0	60.0	10.0	100 (10)
Total	12.1 (8)	37.9 (25)	6.1 (4)	21.2 (14)	13.6 (9)	9.1 (6)	100 (66)

Source: CBS (1987b).

Note: Figures in parentheses refer to numbers of cases.

Appendix 11. Classification of economically active non-migrant rural population by occupation, 1986/87

Age group	*Prof/Adm*	*Sales/Serv.*	*Produc.*	*Agri.*	*Others*	*Not stated*	*Total*
				Male			
10-14	1.0	15.4	8.9	56.6	9.4	17.6	100 (790)
15-19	0.5	16.0	1.3	77.9	3.1	1.2	100 (869)
20-24	2.6	19.6	2.5	73.7	1.3	0.3	100 (937)
25-29	2.5	23.1	1.7	71.9	0.6	0.2	100 (923)
30-34	2.0	22.7	2.7	71.3	0.5	0.8	100 (752)
35-39	1.9	18.7	2.0	77.0	0.1	0.3	100 (692)
40-44	1.8	17.5	1.8	78.2	0.2	0.5	100 (600)
45-49	0.6	16.1	0.6	82.3	-	0.4	100 (510)
50-54	-	12.0	1.4	86.2	0.4	-	100 (486)
55-59	0.6	8.2	2.5	87.7	1.0	-	100 (317)
60+	-	5.3	1.5	82.3	10.4	0.4	100 (796)
Total	1.3 (96)	16.6 (1 271)	1.6 (131)	75.5 (5 789)	2.8 (212)	2.2 (172)	100 (7 671)
				Female			
10-14	-	5.5	0.3	60.1	18.0	16.1	100 (993)
15-19	0.2	5.3	1.0	78.3	11.8	3.4	100 (621)
20-24	0.3	5.8	2.2	86.0	3.8	1.9	100 (364)
25-29	0.8	8.6	0.4	86.4	1.7	2.1	100 (243)
30-34	-	8.3	-	89.8	1.4	0.5	100 (216)
35-39	-	11.2	1.1	86.0	0.6	1.1	100 (187)
40-44	-	8.3	1.3	87.3	0.6	2.5	100 (157)
45-49	-	14.2	1.7	84.2	-	-	100 (120)
50-54	-	6.8	2.3	87.2	2.3	1.5	100 (133)
55-59	-	5.1	-	91.1	3.8	-	100 (79)
60+	-	3.4	0.5	66.3	27.3	2.5	100 (205)
Total	0.1 (4)	6.6 (217)	0.8 (28)	76.0 (2 514)	10.2 (337)	6.3 (208)	100 (3 308)

Source: CBS (1987b).

Note: Figures in parentheses refer to numbers of cases.

Appendix 12. Classification of economically active non-migrant urban population by occupation, 1986/87

Age group	*Prof/Adm*	*Sales/Serv.*	*Produc.*	*Agri.*	*Others*	*Not stated*	*Total*
Male							
10-14	-	28.9	5.8	38.8	3.3	23.2	100 (121)
15-19	1.4	32.1	10.1	45.4	4.1	6.9	100 (218)
20-24	4.2	47.3	4.3	36.4	2.4	5.4	100 (330)
25-29	4.9	59.1	1.4	32.5	1.1	1.0	100 (286)
30-34	5.3	57.6	4.2	31.0	0.8	1.1	100 (264)
35-39	5.8	55.8	3.1	34.4	0.9	-	100 (224)
40-44	7.2	52.4	5.2	34.3	0.9	-	100 (210)
45-49	5.2	45.2	4.5	43.2	1.3	0.6	100 (155)
50-54	8.0	44.2	5.5	39.9	2.4	-	100 (163)
55-59	3.6	36.9	1.8	50.5	6.3	0.9	100 (111)
60+	3.5	19.0	2.2	50.0	21.7	3.6	100 (226)
Total	4.6	45.2	4.3	38.6	4.0	3.3	100
	(106)	(1 043)	(99)	(891)	(92)	(77)	(2 308)
Female							
10-14	-	13.0	2.6	50.0	5.8	28.6	100 (154)
15-19	0.7	17.0	3.3	66.0	2.6	10.4	100 (153)
20-24	4.2	19.5	5.1	61.0	1.7	8.5	100 (118)
25-29	3.9	33.8	1.3	57.2	1.3	2.5	100 (77)
30-34	2.9	31.4	4.3	58.6	-	2.8	100 (70)
35-39	1.6	30.4	3.6	62.5	-	1.5	100 (63)
40-44	1.8	30.4	3.6	62.5	-	1.7	100 (56)
45-49	-	16.0	2.0	80.0	2.0	-	100 (50)
50-54	2.2	15.6	4.4	73.3	2.2	2.3	100 (45)
55-59	3.3	6.7	10.0	76.7	3.3	-	100 (30)
60+	1.0	3.8	-	52.9	40.4	1.9	100 (104)
Total	1.7	18.9	3.3	60.9	6.6	8.6	100
	(16)	(174)	(30)	(560)	(61)	(79)	(920)

Source: CBS (1987b).

Note: Figures in parentheses refer to numbers of cases.

Appendix 13. Literacy rates of rural-to-rural migrants, by age and sex, 1986/87

Age group	*Literate*	*Illiterate*	*Not stated*	*Total*
		Male		
6-9	58.1	26.9	15.0	100 (160)
10-14	75.3	24.2	0.5	100 (227)
15-19	71.5	27.6	0.9	100 (228)
20-24	62.7	36.4	0.9	100 (217)
25-29	60.4	39.6	-	100 (260)
30-34	66.8	33.2	-	100 (247)
35-39	56.0	44.0	-	100 (207)
40-44	49.0	51.0	-	100 (192)
45-49	44.4	55.6	-	100 (135)
50-54	40.1	59.2	0.7	100 (142)
55-59	43.2	56.8	-	100 (74)
60+	35.6	63.9	0.5	100 (202)
Total	57.5 (1 316)	41.2 (944)	1.3 (31)	100.0 (2 291)
		Female		
6-9	34.6	48.5	16.9	100 (136)
10-14	46.3	52.1	1.6	100 (192)
15-19	26.0	73.3	0.7	100 (554)
20-24	17.5	81.7	0.8	100 (932)
25-29	12.3	87.2	0.5	100 (858)
30-34	9.6	90.0	0.4	100 (696)
35-39	5.2	94.6	0.2	100 (635)
40-44	5.4	94.4	0.2	100 (513)
45-49	4.2	95.6	0.2	100 (456)
50-54	3.1	96.6	0.3	100 (380)
55-59	1.8	97.5	0.7	100 (278)
60+	2.1	96.5	1.4	100 (623)
Total	11.6 (726)	87.4 (5 468)	1.0 (59)	100 (6 253)

Source: CBS (1987b).

Note: Figures in parentheses refer to numbers of cases.

Appendix 14. Literacy rates of urban-to-rural migrants, by age and sex, 1986/87

Age group	*Literate*	*Illiterate*	*Not stated*	*Total*
		Male		
6-9	100.0	-	-	100 (4)
10-14	83.3	16.7	-	100 (12)
15-19	87.5	12.5	-	100 (8)
20-24	100.0	-	-	100 (6)
25-29	69.2	30.8	-	100 (13)
30-34	84.2	15.8	-	100 (19)
35-39	81.7	8.3	-	100 (12)
40-44	46.1	46.1	7.8	100 (13)
45-49	75.0	25.0	-	100 (4)
50-54	70.0	30.0	-	100 (10)
55-59	40.0	40.0	20.0	100 (5)
60+	66.7	33.3	-	100 (12)
Total	75.4	22.9	1.7	100
	(89)	(27)	(2)	(118)
		Female		
6-9	50.0	-	50.0	100 (5)
10-14	77.8	22.2	-	100 (9)
15-19	66.7	33.3	-	100 (21)
20-24	50.0	50.0	-	100 (42)
25-29	64.1	35.9	-	100 (39)
30-34	43.2	54.5	2.3	100 (44)
35-39	44.0	56.0	-	100 (25)
40-44	27.6	72.4	-	100 (29)
45-49	30.0	70.0	-	100 (20)
50-54	77.1	92.9	-	100 (14)
55-59	20.0	80.0	-	100 (10)
60+	16.0	84.0	-	100 (25)
Total	42.6	56.0	1.4	100
	(121)	(159)	(4)	(284)

Source: CBS (1987b).

Note: Figures in parentheses refer to numbers of cases.

Appendix 15. Literacy rates of rural-to-urban migrants, by age and sex, 1986/87

Age group	*Literate*	*Illiterate*	*Not stated*	*Total*
		Male		
6-9	65.4	26.9	7.7	100 (26)
10-14	83.7	16.3	-	100 (43)
15-19	78.7	20.0	1.3	100 (8)
20-24	86.8	12.3	0.9	100 (106)
25-29	83.0	17.0	-	100 (100)
30-34	79.1	20.9	-	100 (91)
35-39	65.4	33.3	1.3	100 (75)
40-44	68.3	31.7	-	100 (63)
45-49	60.4	39.6	-	100 (53)
50-54	75.4	25.6	-	100 (61)
55-59	70.4	29.6	-	100 (27)
60+	65.1	34.9	-	100 (63)
Total	75.3	24.1	0.6	100
	(593)	(190)	(5)	(788)
		Female		
6-9	80.0	20.0	-	100 (15)
10-14	69.4	28.6	2.0	100 (49)
15-19	48.7	51.3	-	100 (113)
20-24	32.7	66.1	1.2	100 (162)
25-29	25.0	73.5	1.5	100 (132)
30-34	17.8	80.5	1.7	100 (118)
35-39	19.6	77.7	2.7	100 (112)
40-44	13.5	83.1	3.4	100 (118)
45-49	14.4	83.2	2.4	100 (83)
50-54	9.6	86.5	3.9	100 (52)
55-59	17.5	77.5	5.0	100 (40)
60+	6.1	87.8	6.1	100 (99)
Total	25.3	72.4	2.3	100
	(276)	(791)	(26)	(1 093)

Source: CBS (1987b).

Note: Figures in parentheses refer to numbers of cases.

Appendix 16. Literacy rates of urban-to-urban migrants, by age and sex, 1986/87

Age group	*Literate*	*Illiterate*	*Not stated*	*Total*
		Male		
6-9	85.7	-	14.3	100 (7)
10-14	92.3	7.7	-	100 (13)
15-19	100.0	-	-	100 (18)
20-24	86.4	9.1	4.5	100 (22)
25-29	90.5	9.5	-	100 (21)
30-34	83.3	16.7	-	100 (18)
35-39	93.7	6.3	-	100 (16)
40-44	100.0	-	-	100 (15)
45-49	100.0	-	-	100 (9)
50-54	85.7	14.3	-	100 (14)
55-59	88.9	11.1	-	100 (9)
60+	76.9	23.1	-	100 (13)
Total	90.3 (158)	8.6 (15)	1.1 (2)	100 (175)
		Female		
6-9	53.3	6.7	40.0	100 (15)
10-14	88.9	11.1	-	100 (9)
15-19	87.5	12.5	-	100 (24)
20-24	76.3	21.1	2.6	100 (38)
25-29	82.2	17.8	-	100 (45)
30-34	93.5	6.5	-	100 (31)
35-39	80.0	20.0	-	100 (25)
40-44	67.9	32.1	-	100 (28)
45-49	33.3	66.7	-	100 (15)
50-54	27.3	63.6	9.0	100 (11)
55-59	23.1	76.9	-	100 (13)
60+	25.0	70.0	5.0	100 (20)
Total	68.2 (187)	28.5 (78)	3.3 (9)	100 (274)

Source: CBS (1987b).

Note: Figures in parentheses refer to numbers of cases.

Appendix 17. Percentage distribution of literate rural-to-rural migrants by level of schooling completed, by age and sex, 1986/87

Age group	*No schooling*	*1-5*	*6-9*	*10-15*	*Not stated*	*Total*
			Male			
6-9	28.7	69.2	-	-	2.1	100 (93)
10-14	1.7	71.5	26.2	-	0.6	100 (171)
15-19	2.4	20.7	60.4	16.5	-	100 (163)
20-24	7.3	23.5	24.3	44.9	-	100 (136)
25-29	13.3	21.6	23.6	41.4	-	100 (157)
30-34	17.6	28.5	23.0	27.3	3.6	100 (165)
35-39	32.9	12.9	19.0	29.3	6.0	100 (116)
40-44	46.8	18.1	13.8	14.9	6.4	100 (94)
45-49	56.7	11.7	5.0	18.3	8.3	100 (60)
50-54	53.4	20.7	13.8	8.6	3.5	100 (57)
55-59	71.9	9.4	3.1	12.5	3.1	100 (32)
60+	74.0	6.8	2.8	2.7	13.7	100 (72)
Total	24.2 (318)	30.0 (395)	22.9 (301)	20.4 (269)	2.5 (33)	100 (1 316)
			Female			
6-9	53.1	42.9	-	-	4.0	100 (47)
10-14	5.6	79.8	13.5	1.1	-	100 (89)
15-19	13.2	35.9	35.9	12.3	2.6	100 (144)
20-24	22.6	29.4	21.5	22.6	3.9	100 (163)
25-29	35.2	32.4	12.0	13.0	7.4	100 (106)
30-34	52.2	17.4	13.0	8.7	8.7	100 (67)
35-39	45.5	21.2	24.2	9.1	-	100 (53)
40-44	51.7	20.7	17.2	3.5	6.9	100 (28)
45-49	75.0	15.0	-	-	10.0	100 (19)
50-54	75.0	-	16.6	8.4	-	100 (12)
55-59	66.7	16.7	-	-	16.6	100 (105)
60+	61.5	15.4	15.4	-	7.7	100 (13)
Total	31.4 (227)	35.5 (258)	19.0 (138)	11.1 (81)	3.0 (22)	100 (726)

Source: CBS (1987b).

Note: Figures in parentheses refer to numbers of cases.

Appendix 18. Percentage distribution of literate urban-to-rural migrants by level of schooling completed, by age and sex, 1986/87

Age group	*No schooling*	*1-5*	*6-9*	*10-15*	*Not stated*	*Total*
			Male			
6-9	50.0	50.0	-	-	-	100 (104)
10-14	-	30.0	70.0	-	-	100 (10)
15-19	-	28.6	28.6	28.5	14.3	100 (7)
20-24	-	16.6	16.7	66.7	-	100 (6)
25-29	11.1	33.3	-	55.6	-	100 (9)
30-34	-	6.3	31.3	56.3	6.1	100 (16)
35-39	18.2	18.2	27.3	36.3	-	100 (11)
40-44	-	-	16.7	83.3	-	100 (6)
45-49	-	33.3	-	66.7	-	100 (3)
50-54	57.2	-	28.5	14.3	-	100 (7)
55-59	100.0	-	-		-	100 (2)
60+	75.0	-	-	25.0	-	100 (8)
Total	19.10 (17)	16.9 (15)	23.6 (21)	38.2 (34)	2.2 (2)	100 (89)
			Female			
6-9	33.3	66.7	-	-	-	100 (3)
10-14	-	85.7	14.3	-	-	100 (7)
15-19	14.4	7.2	35.8	42.6	-	100 (14)
20-24	14.3	-	28.6	57.1	-	100 (21)
25-29	12.0	24.0	24.0	40.0	-	100 (25)
30-34	10.5	5.3	36.8	47.4	-	100 (19)
35-39	36.4	27.2	-	36.4	-	100 (11)
40-44	37.5	37.5	12.5	12.5	-	100 (8)
45-49	50.0	16.7	-	33.3	-	100 (6)
50-54	100.0	-	-	-	-	100 (1)
55-59	50.0	-	-	50.0	-	100 (2)
60+	75.0	-	-	25.0	-	100 (4)
Total	21.5 (26)	19.0 (23)	21.5 (26)	38.0 (46)	-	100 (121)

Source: CBS (1987b).

Note: Figures in parentheses refer to numbers of cases.

Appendix 19. Percentage distribution of literate rural-to-urban migrants by level of schooling completed, by age and sex, 1986/87

Age group	*No schooling*	*1-5*	*6-9*	*10-15*	*Not stated*	*Total*
			Male			
6-9	41.2	58.8	-	-	-	100 (17)
10-14	-	55.6	44.4	-	-	100 (36)
15-19	4.8	14.3	33.3	47.6	-	100 (63)
20-24	13.0	3.3	17.4	66.3	-	100 (92)
25-29	14.5	13.3	20.5	49.4	2.3	100 (83)
30-34	12.5	9.7	29.2	43.1	5.5	100 (72)
35-39	14.3	12.3	20.4	46.9	6.1	100 (49)
40-44	23.2	11.6	14.0	32.6	18.6	100 (43)
45-49	37.5	12.5	9.4	31.3	9.3	100 (32)
50-54	41.3	2.2	6.5	26.1	23.9	100 (46)
55-59	47.4	21.1	10.5	5.3	15.7	100 (19)
60+	53.7	7.3	-	12.2	26.8	100 (41)
Total	20.6 (122)	14.0 (83)	19.4 (115)	38.5 (228)	7.5 (45)	100 (593)
			Female			
6-9	33.3	66.7	-	-	-	100 (12)
10-14	2.9	50.0	47.1	-	-	100 (34)
15-19	16.4	18.2	40.0	25.4	-	100 (55)
20-24	9.4	18.9	35.8	34.0	1.9	100 (53)
25-29	33.3	21.2	21.2	24.3	-	100 (33)
30-34	31.8	13.6	27.3	27.3	-	100 (21)
35-39	31.8	18.2	13.6	18.2	18.2	100 (22)
40-44	50.0	25.0	12.5	6.3	6.2	100 (16)
45-49	50.0	-	25.0	-	25.0	100 (12)
50-54	60.9	40.0	-	-	-	100 (5)
55-59	71.4	14.3	-	-	14.3	100 (7)
60+	100.0	-	-	-	-	100 (6)
Total	26.3 (72)	23.8 (66)	28.2 (78)	18.4 (51)	3.3 (9)	100 (276)

Source: CBS (1987b).

Note: Figures in parentheses refer to numbers of cases.

Appendix 20. Percentage distribution of literate urban-to-urban migrants by level of schooling completed, by age and sex, 1986/87

Age group	*No schooling*	*1-5*	*6-9*	*10-15*	*Not stated*	*Total*
			Male			
6-9	33.3	66.7	-	-	-	100 (6)
10-14	-	41.8	58.3	-	-	100 (12)
15-19	-	-	44.4	55.6	-	100 (18)
20-24	-	5.3	15.8	78.9	-	100 (19)
25-29	5.3	5.3	26.3	57.9	5.2	100 (19)
30-34	6.7	6.7	13.3	66.6	6.7	100 (15)
35-39	6.7	6.7	-	86.6	-	100 (15)
40-44	33.3	33.3	-	46.7	6.7	100 (15)
45-49	33.3	-	-	66.7	-	100 (15)
50-54	8.3	-	16.7	75.0	-	100 (9)
55-59	50.0	-	-	50.0	-	100 (12)
60+	60.0	10.0	10.0	20.0	-	100 (8)
Total	15.2	10.1	17.7	55.1	1.9	100
	(24)	(16)	(28)	(87)	(3)	(158)
			Female			
6-9	37.5	62.5	-	-	-	100 (8)
10-14	-	50.0	50.0	-	-	100 (8)
15-19	-	23.8	38.8	38.8	-	100 (21)
20-24	6.9	10.3	24.1	55.2	3.5	100 (29)
25-29	8.1	10.8	13.5	64.9	2.7	100 (37)
30-34	6.9	13.8	34.5	44.8	-	100 (29)
35-39	35.0	5.0	30.0	30.0	-	100 (20)
40-44	31.6	10.5	5.3	47.4	5.5	100 (19)
45-49	20.0	-	60.0	-	20.0	100 (5)
50-54	100.0	-	-	-	-	100 (3)
55-59	66.7	-	-	33.3	-	100 (3)
60+	66.7	-	-	-	33.3	100 (5)
Total	17.6	15.0	23.5	41.2	2.7	100
	(33)	(28)	(44)	(77)	(5)	(187)

Source: CBS (1987b).

Note: Figures in parentheses refer to numbers of cases.

Appendix 21. Percentage distribution of literate, non-migrant, rural population age 6 years and above by level of education attended, by age group and sex, 1986/87

Age group	*No scholing*	*1-5*	*6-9*	*10-15*	*Not stated*	*Total*
Male						
6-9	39.0	57.9	-	-	3.1	100 (967)
10-14	5.9	77.1	16.7	-	0.3	100 (1 460)
15-19	6.5	31.4	47.9	13.6	0.6	100 (962)
20-24	12.8	22.2	25.7	37.3	2.0	100 (600)
25-29	24.8	24.8	22.2	26.0	2.2	100 (451)
30-34	30.1	22.0	22.0	23.7	2.3	100 (346)
35-39	37.1	16.5	16.5	14.1	5.8	100 (225)
40-44	53.7	12.5	11.6	9.2	13.0	100 (216)
45-49	71.4	3.7	3.7	8.7	12.5	100 (161)
50-54	68.8	5.5	6.2	7.0	12.5	100 (128)
54-59	73.2	4.9	6.1	2.4	13.4	100 (82)
60+	80.4	2.1	2.6	1.1	13.8	100 (189)
Total	25.3	41.2	19.4	11.0	3.1	100
	(1 469)	(2 399)	(1 126)	(637)	(186)	(5 817)
Female						
6-9	39.8	55.3	-	-	4.9	100 (528)
10-14	6.6	80.3	11.7	0.1	1.3	100 (641)
15-19	10.4	37.1	39.2	10.8	2.5	100 (278)
20-24	20.3	23.4	29.7	20.3	6.3	100 (64)
25-29	36.0	44.0	12.0	4.0	4.0	100 (25)
30-34	54.6	9.1	-	-	36.3	100 (11)
35-39	66.7	-	-	-	33.3	100 (6)
40-44	42.9	-	-	-	57.1	100 (7)
45-49	66.7	-	-	-	33.1	100 (3)
50-54	33.4	-	33.3	-	33.3	100 (3)
55-59	-	-	-	-	100	100 (1)
60+	14.3	-	-	-	85.7	100 (7)
Total	20.3	59.5	13.2	2.9	4.1	100
	(320)	(937)	(207)	(45)	(65)	(1 574)

Source: CBS (1987b).

Note: Figures in parenthses refer to numbers of cases.

Appendix 22. Percentage distribution of literate, non-migrant, urban population age 6 years and above by level of education attended, by sex and age group, 1986/87

Age group	*No schooling*	*1-5*	*6-9*	*10-15*	*Not stated*	*Total*
			Males			
6-9	32.8	65.7	-	-	1.5	100 (527)
10-14	2.9	68.1	28.2	0.7	0.1	100 (692)
15-19	3.1	14.2	51.5	30.9	0.3	100 (550)
20-24	8.0	9.6	20.5	60.7	1.2	100 (415)
25-29	11.0	10.6	19.3	57.5	1.6	100 (254)
30-34	15.5	10.5	17.0	52.5	4.5	100 (200)
35-39	15.5	9.3	18.6	51.6	5.0	100 (161)
40-44	31.6	9.0	9.1	45.8	4.5	100 (155)
45-49	39.1	6.5	18.5	32.6	3.3	100 (92)
50-54	51.4	9.0	6.3	26.1	7.2	100 (111)
55-59	56.3	12.5	9.4	15.6	6.2	100 (64)
60+	65.1	7.5	4.7	10.4	12.3	100 (106)
Total	17.3 (574)	31.4 (1 044)	21.8 (725)	27.4 (912)	2.1 (72)	100 (3 327)
			Females			
6-9	33.3	65.1	-	-	1.6	100 (418)
10-14	4.1	63.9	30.5	1.3	0.2	100 (593)
15-19	6.0	14.8	43.0	34.5	1.7	100 (400)
20-24	11.3	6.7	13.4	66.0	2.6	100 (194)
25-29	10.0	11.0	20.0	55.0	4.0	100 (100)
30-34	19.7	12.7	12.7	52.1	2.8	100 (71)
35-39	32.6	19.6	8.7	34.8	4.3	100 (46)
40-44	59.3	3.7	14.8	18.5	3.7	100 (27)
45-49	60.0	-	16.0	20.0	4.0	100 (25)
50-54	43.8	12.5	-	18.7	25.0	100 (16)
55-59	75.0	-	-	-	25.0	100 (4)
60+	85.7	7.2	-	-	7.1	100 (14)
Total	15.8 (301)	39.6 (756)	22.0 (420)	20.7 (395)	1.9 (36)	100 (1 908)

Source: CBS (1987b).

Note: Figures in parentheses refer to numbers of cases.

Appendix 23. P/F ratio method of estimating fertility, Kathmandu Valley urban centres, census 1981

Age group	*Children ever born*	*Births in past year*	*Number of women*
15-19	2 556	340	17 192
20-24	14 848	1 504	17 775
25-29	23 609	1 360	14 141
30-34	28 003	959	11 562
35-39	29 881	688	10 339
40-44	26 699	375	8 198
45-49	22 727	343	6 815
Total	148 323	5 569	86 022
Total population			363 507

Average parities, estimated parity equivalents, period fertility rates, cumulative fertilities, and P/F ratios, Kathmandu Valley urban centres, census 1981

Age group	*Average parity/woman*	*Estimated parity equivalent*	*Period fertility rate*	*Cumulative fertility*	*P/F ratio*	*Index*
14-19	0.149	0.040	0.0198	0.0989	3.764	1
20-24	0.835	0.343	0.0846	0.5219	2.433	2
25-29	1.670	0.816	0.0962	1.0028	2.045	3
30-34	2.422	1.257	0.0829	1.4175	1.926	4
35-39	2.890	1.618	0.0665	1.7503	1.786	5
40-44	3.257	1.802	0.0457	1.9790	1.807	6
45-49	3.335	2.172	0.0503	2.2306	1.535	7

Reported period fertility rates, fertility rates for conventional age groups, adjusted fertility rates, and estimated number of births, Kathmandu Valley urban centres, census 1981

Age group	*Reported fertility rate*	*Fertility rate for conventional age groups*	*Adjusted fertility rate (K=2.239)*	*Estimated number of births*
15-19	0.0198	0.0245	0.0548	942
20-24	0.0846	0.0891	0.1996	3 548
25-29	0.0962	0.0961	0.2152	3 043
30-34	0.0829	0.0816	0.1827	2 112
35-39	0.0665	0.0652	0.1460	1 509
40-44	0.0457	0.0321	0.0718	589
45-49	0.0503	0.0576	0.1290	879
Total	0.4461	0.4461	0.9990	12 622
Total fertility	2.23	2.23	5.0	
Adjusted crude birth rate				0.0347
General fertility rate				0.1467

Appendix 24. P/F ratio method of estimating fertility, Hill urban centres, census 1981

Age group	*Children ever born*	*Births in past year*	*Number of women*
15-19	577	116	4 194
20-24	3 659	515	4 385
25-29	5 508	415	3 280
30-34	6 308	260	2 570
35-39	6 801	176	2 341
40-44	6 864	105	2 040
45-49	5 560	50	1 603
Total	35 277	1 637	20 413
Total population			83 376

Average parities, estimated parity equivalents, period fertility rates, cumulative fertilities, and P/F ratios, Hill urban centres, census 1981

Age group	*Average parity/woman P*	*Estimated parity equivalent F*	*Period fertility rate*	*Cumulative fertility*	*P/F ratio*	*Index*
15-19	0.138	0.054	0.0277	0.1383	2.534	1
20-24	0.834	0.476	0.1174	0.7255	1.754	2
25-29	1.679	1.114	0.1265	1.3581	1.508	3
30-34	2.454	1.672	0.1012	1.8640	1.468	4
35-39	2.905	2.091	0.0752	2.2399	1.390	5
40-44	3.365	2.361	0.0515	2.4972	1.425	6
45-49	3.468	2.617	0.0312	2.6532	1.325	7

Reported period fertility rates, fertility rates for conventional age groups, adjusted fertility rates, and estimated number of births, Hill urban centres, census 1981

Age group	*Reported fertility rate*	*Fertility rate for conventional age groups*	*Adjusted fertility rate (K=1.754)*	*Estimated number of births*
15-19	0.0277	0.0347	0.0609	255
20-24	0.1174	0.1232	0.2161	948
25-29	0.1265	0.1254	0.2199	721
30-34	0.1012	0.0986	0.1729	444
35-39	0.0752	0.0734	0.1288	302
40-44	0.0515	0.0468	0.0821	168
45-49	0.0312	0.0286	0.0501	80
Total	0.5306	0.5306	0.9309	2 918
Total fertility	2.65	2.65	4.65	
Adjusted crude birth rate				0.0350
General fertility rate				0.1430

Appendix 25. P/F ratio method of estimating fertility, inner *tarai* urban centres, census 1981

Age group	*Children ever born*	*Births in past year*	*Number of women*
15-19	1 615	301	4 634
20-24	6 947	869	4 830
25-29	9 900	647	3 837
30-34	10 439	459	3 087
35-39	10 893	263	2 672
40-44	9 499	146	2 156
45-49	7 007	85	1 589
Total	56 300	2 770	22 805
Total population			96 861

Average parities, estimated parity equivalents, period fertility rates, cumulative fertilities, and P/F ratios, inner tarai urban centres, census 1981

Age group	*Average parity/woman*	*Estimated parity equivalent*	*Period fertility rate*	*Cumulative fertility*	*P/F ratio*	*Index*
15-19	0.349	0.140	0.0650	0.3248	2.490	1
20-24	1.438	0.858	0.1799	1.2244	1.676	2
25-29	2.580	1.738	0.1686	2.0675	1.484	3
30-34	3.382	2.535	0.1487	2.8109	1.334	4
35-39	4.077	3.108	0.0984	3.3030	1.312	5
40-44	4.406	3.431	0.0677	3.6416	1.284	6
45-49	4.410	3.847	0.0535	3.9091	1.146	7

Reported period fertility rates, fertility rates for conventional age groups, adjusted fertility rates, and estimated number of births, inner tarai urban centres, census 1981

Age group	*Reported fertility rate*	*Fertility rate for conventional age groups*	*Adjusted fertility rate (K=1.580)*	*Estimated number of births*
15-19	0.0650	0.0783	0.1238	573
20-24	0.1799	0.1841	0.2909	1 405
25-29	0.1686	0.1674	0.2645	1 015
30-34	0.1487	0.1447	0.2287	706
35-39	0.0984	0.0959	0.1515	405
40-44	0.0677	0.0599	0.0947	204
45-49	0.0535	0.0516	0.0815	130
Total	0.7818	0.7818	1.2354	4 438
Total fertility	3.91	3.91	6.18	
Adjusted crude birth rate				0.0458
General fertility rate				0.1946

Appendix 26. P/F ratio method of estimating fertility, Kathmandu Valley urban centres, census 1991

Age group	*Children ever born*	*Births in past year*	*Number of women*
15-19	3 138	517	34 594
20-24	26 169	2 086	36 166
25-29	43 699	1 468	27 840
30-34	45 679	580	20 339
35-39	43 988	216	16 407
40-44	38 987	64	12 973
45-49	34 064	22	10 863
Total	235 724	4 953	147 482
Total population			598 528

Average parities, estimated parity equivalents, period fertility rates, cumulative fertilities, and P/F ratios, Kathmandu Valley urban centres, census, 1991

Age group	*Average parity/woman*	*Estimated parity equivalent*	*Period fertility rate*	*Cumulative fertility*	*P/F ratio*	*Index*
15-19	0.091	0.029	0.0149	0.0747	3.120	1
20-24	0.724	0.241	0.0577	0.3631	3.008	2
25-29	1.570	0.530	0.0527	0.6268	2.962	3
30-34	2.246	0.720	0.0285	0.7693	3.119	4
35-39	2.681	0.812	0.0132	0.8352	3.300	5
40-44	3.005	0.849	0.0049	0.8598	3.539	6
45-49	3.136	0.867	0.0020	0.8700	3.615	7

Reported period fertility rates, fertility rates for conventional age groups, adjusted fertility rates, and estimated number of births, Kathmandu Valley urban centres, census, 1991

Age group	*Reported fertility rate*	*Fertility rate for conventional age groups*	*Adjusted fertility rate (K=3.008)*	*Estimated number of births*
15-19	0.0149	0.0194	0.0585	2 022
20-24	0.0577	0.0595	0.1790	6 475
25-29	0.0527	0.0503	0.1512	4 210
30-34	0.0285	0.0264	0.0794	1 616
35-39	0.0132	0.0122	0.0368	603
40-44	0.0049	0.0046	0.0138	179
45-49	0.0020	0.0015	0.0046	50
Total	0.1740	0.1740	0.5234	15 155
Total fertility	0.87	0.87	2.62	
Adjusted crude birth rate				0.0253
General fertility rate				0.0952

Appendix 27. P/F ratio method of estimating fertility, Hill urban centres, census 1991

Age group	*Children ever born*	*Births in past year*	*Number of women*
15-19	2 334	667	14 187
20-24	15 833	1 441	14 831
25-29	24 877	886	11 849
30-34	25 157	396	8 955
35-39	23 879	193	7 282
40-44	19 698	72	5 440
45-49	18 271	34	4 816
Total	130 037	3 689	67 360
Total population			269 367

Average parities, estimated parity equivalents, period fertility rates, cumulative fertilities, and P/F ratios, Hill urban centres, census 1991

Age group	*Average parity/woman*	*Estimated parity equivalent*	*Period fertility rate*	*Cumulative fertility*	*P/F ratio*	*Index*
15-19	0.165	0.104	0.0470	0.2351	1.575	1
20-24	1.068	0.526	0.0972	0.7209	2.028	2
25-29	2.100	0.960	0.0748	1.0948	2.188	3
30-34	2.809	1.237	0.0442	1.3159	2.272	4
35-39	3.278	1.400	0.0265	1.4484	2.341	5
40-44	3.621	1.482	0.0132	1.5146	2.444	6
45-49	3.794	1.541	0.0071	1.5499	2.461	7

Reported period fertility rates, fertility rates for conventional age groups, adjusted fertility rates, and estimated number of births, Hill urban centres, census 1991

Age group	*Reported fertility rate*	*Fertility rate for conventional age groups*	*Adjusted fertility rate (K=2.028)*	*Estimated number of births*
15-19	0.0470	0.0575	0.1165	1 653
20-24	0.0972	0.0956	0.1940	2 877
25-29	0.0748	0.0714	0.1447	1 715
30-34	0.0442	0.0420	0.0853	764
35-39	0.0265	0.0253	0.0513	373
40-44	0.0132	0.0125	0.0254	138
45-49	0.0071	0.0056	0.0114	55
Total	0.3100	0.3100	0.6286	7 575
Total fertility	1.55	1.55	3.14	
Adjusted crude birth rate				0.0281
General fertility rate				0.1125

Appendix 28. P/F ratio method of estimating fertility, *Tarai* urban centres, census 1991

Age group	*Children ever born*	*Births in past year*	*Number of women*
15-19	8 295	1 391	41 670
20-24	47 816	3 773	40 573
25-29	82 395	2 952	35 687
30-34	86 055	1 430	28 137
35-39	83 064	702	23 533
40-44	64 044	231	17 076
45-49	50 633	108	13 214
Total	422 302	90 587	199 890
Total population			827 824

Average parities, estimated parity equivalents, period fertility rates, cumulative fertilities, and P/F ratios, *Tarai* towns, census 1991

Age group	*Average parity/woman*	*Estimated parity equivalent*	*Period fertility rate*	*Cumulative fertility*	*P/F ratio*	*Index*
15-19	0.199	0.071	0.0334	0.1669	2.814	1
20-24	1.179	0.438	0.0930	0.6319	2.688	2
25-29	2.309	0.893	0.0827	1.0455	2.586	3
30-34	3.058	1.208	0.0508	1.2996	2.532	4
35-39	3.530	1.395	0.0298	1.4487	2.530	5
40-44	3.751	1.481	0.0135	1.5164	2.533	6
45-49	3.832	1.548	0.0082	1.5572	2.476	7

Reported period fertility rates, fertility rates for conventional age groups, adjusted fertility rates, and estimated number of births, *Tarai* urban centres, census 1991

Age group	*Reported fertility rate*	*Fertility rate for conventional age groups*	*Adjusted fertility rate (K=2.688)*	*Estimated number of births*
15-19	0.0334	0.0415	0.1114	4 643
20-24	0.0930	0.0945	0.2539	10 301
25-29	0.0827	0.0796	0.2140	7 639
30-34	0.0508	0.0482	0.1295	3 645
35-39	0.0298	0.0282	0.0759	1 786
40-44	0.0135	0.0128	0.0345	589
45-49	0.0082	0.0066	0.0179	236
Total	0.3114	0.3114	0.8372	28 839
Total fertility	1.56	1.56	4.19	
Adjusted crude birth rate				0.0348
General fertility rate				0.1443

ACKNOWLEDGMENTS

The author acknowledges the following individuals of the Central Department of Population Studies for helping to prepare this report. Mr. Yogendra Bahadur Gurung was instrumental in processing the final document. Mr. Keshav Prasad Adhikari helped with processing census data and Mr. Sunil Acharya assisted in finalizing the maps and figures. Initial processing of the document was done by Mr. G.B. Shahi. Mr. Bhim Suwal did the initial work for the urban population projections.

REFERENCES

Adams, N.A. (1969). Internal migration in Jamaica: An economic analysis. *Social and Economic Studies*, vol. 18, pp. 137-151.

Anderson, T.R. (1955). Inter-metropolitan migration: A comparison of hypotheses of Zipf and Stouffer. *American Sociological Review*, vol.20, pp.287-291.

Bose, Ashish (1992). *Review of the trends and patterns of rural-urban migration: Outline of a regional study*. Paper presented at the Expert Group Meeting on Trends, Patterns and Implications of Rural-Urban Migration, Bangkok, 3-6 November 1992.

Bogue, D.J. (1959). Internal migration. In *The Study of Population: An Inventory and Appraisal*, P.M. Hauser and O.D. Duncan, eds. Chicago: University of Chicago Press, pp.486-509.

Budathoki, P.K. (1992). *Fertility Patterns of Squatters in Kathmandu City*. Kathmandu: Central Deparment of Population Studies, Tribhuvan University.

Central Bureau of Statistics (CBS)(1967). *Population Census 1961*, 3 vols., 4 pts. Kathmandu: CBS.

_________ (1975). *Population Census 1971*, 5 vols., 4 pts. Kathmandu: CBS.

_________ (1984). *Population Census 1981*, 4 vols., 9, pts. Kathmandu: CBS.

_________ (1987a). *Population Monograph of Nepal*. Kathmandu: CBS.

_________ (1987b). *Demographic Sample Survey, 1986/87*. Kathmandu: CBS.

_________ (1988). *Migration Statistics from Demographic Sample Survey, 1986/87*. Kathmandu: CBS.

_________ (1993a). *Population Census-1991*, vol. I, parts I, II, III, IV and VIII. Kathmandu: CBS.

_________ (1993b). *The Analysis of the 1991 Population Census Based on Advanced Tables*. Kathmandu: CBS.

_________ (1994a). *Population Projection for Nepal, 1991-2011*. Kathmandu: CBS.

_________ (1994b). *Population Census-1991 (Household Tables)*, vol. III. Kathmandu: CBS.

_________ (1994c). *Population Census-1991 (Urban Tables)*, vol. II. Kathmandu: CBS.

Child Workers in Nepal: Concerned Centre (CWIN) (1992). *Urban Child Labour in Nepal: Realities and Challenges*. Kathmandu: CWIN.

_________ (1993). *Major Findings of the CWIN Survey on the Situation and Problems of Child Labour in Carpet Industries in Nepal*, Kathmandu: CWIN.

Centre for Economic Development and Administration (CEDA) (1989). *Resettlement Report*. Kathmandu: CEDA, Tribhuvan University.

Conway, Dennis, Bal Kumar KC, and Mohan N. Shrestha. (1981). *The Rural to Rural Migration in Nepal*. Final Narrative Report Submitted to the Ford and Rockfeller Foundations. New York: The Ford and Rockfeller Foundations.

Dahal, D.R. (1983). *Poverty or Plenty: Innovative Response to Population Pressure in an Eastern Nepalese Hill Community.* Unpublished Ph.D. Dissertation. Honolulu: Department of Anthropology, University of Hawaii.

ESCAP (1994a). *Urbanization and the Status of Women.* Asian Population Studies Series No.123. New York: United Nations, pp.1-6.

__________ (1994b). Demographic estimates for Asian and Pacific countries and areas. In ESCAP *Population Data Sheet.* Bangkok: ESCAP.

Fricke, T.E. (1986). *Himalayan Household: Tamang Demography and Domestic Process.* Ann Arbor, Michigan: University of Michigan Press.

Goldscheider, Calvin (1969). *An outline of the migration system.* International Population Conference, London, pp. 246-251.

Goldstein, Sidney and A. Goldstein (1981). *Surveys of Migration in Developing Countries: A Methodological Review.* Papers of the East-West Population Institute, no. 71. Honolulu: East-West Population Institute.

Greenwood, M.J. (1972). A regression analysis of migration to urban areas of less developed countries: The case study of India. *Journal of Regional Science*, vol. II, pp. 253-262.

Gurung, H. (1989). *Regional Pattern of Migration in Nepal.* Papers of East-West Population Institute, No. 113. Honolulu: East-West Centre.

Gurung, H., Bal Kumar K.C., C.B. Shrestha, Chaitanya Mishra, D.P. Ojha, P.P. Timilsina, S.B. Gurung and V.B.S. Kansakar (Task Force) (1983). *Internal and International Migration in Nepal.* 4 volumes in Nepali. Kathmandu: NCP.

Hugo, Graeme. (1992). Migration and rural-urban linkages in the ESCAP region. Paper presented at the Pre-Conference Seminar, Seoul, January 1992.

India, Office of the Registrar General and Census Commissioner (ORGCC) (1976). *Census of India 1971,* Series I-India. Special Monograph no.1., *Birth Place Migration in India,* Section III: Classified by Place of Birth. New Delhi: ORGCC.

__________ (1984). *Census of India 1981,* series I, Part II B(i). New Delhi: ORGCC.

Joshi, A. (1985). *Women's Participation in the Carpet Industry: with Special Reference to Kathmandu District.* Unpublished M.A. Dissertation, Department of Geography, Patna University.

Kansakar, V.B.S. (1974). *Population Change in Nepal: A Study of Mobility During 1911-1961.* Unpublished Ph.D. Dissertation, Department of Geography, Patna University.

__________ (1988). Housing Conditions of the Urban Poor in Kathmandu and Pokhara: A study of squatter settlements. Kathmandu: CEDA, Tribhuvan University.

K.C., Bal Kumar (1985). The rural to rural migration in Nepal. *Occasional Papers in the Humanities and Social Science,* vol. 2, pp. 1-26.

__________ (1991). *The Causes and Consequences of Internal and International Migration in Nepal.* Kathmandu: Central Department of Population Studies, Tribhuvan University.

__________ (1993). *Causes And Consequences of Internal and International Migration in Nepal.* Kathmandu: Central Department of Population Studies, Tribhuvan University.

__________ (1994). Patterns and trends of rural-urban migration in Nepal. In *Issues in the Study of Rural-Urban Migration.* Asian Population Studies Series No. 130. New York: United Nations, pp. 38-45.

K.C., Bal Kumar, P.P. Timilsina, and P.L. Joshi (1991). Nepal. In *Small Town and Rural Human Resources Development to Reduce Migration to Large Cities,* Asian Population Studies Series, No. 110. New York: United Nations.

Lee, E.S. (1966). A theory of migration. *Demography,* vol. 3, pp. 428-445.

Ministry of Health, 1993, *Nepal Fertility, Family Planning and Health Status Survey 1991,* (Kathmandu, NIV).

Mabogunje, A.L. (1970). Systems approach to a theory of rural-urban migration. *Geographical Analysis,* vol. 2.

MacFarlane, Alan (1976). *Resource and Population: A Study of the Gurungs of Nepal.* London: Cambridge University Press.

Managalam, J.J., and H.K. Schwarzweller (1968). General theory in the study of migration: Current needs and difficulties. *International Migration Review,* vol. 3, pp. 3-18.

McDougal, C. (1986). *Village and Household Economy in Far-Western Nepal.* Kathmandu: Tribhuvan University.

National Commission on Population (NCP) (1984). *Inter-regional Migration in Nepal: Problems and Prospects.* Kathmandu: NCP.

National Planning Commission (NPC) (1970). *Fourth-Plan, 1970-1975* . Kathmandu: NPC.

__________ (1975). *The Fifth Plan, 1975-1980* . Kathmandu: NPC.

__________ (1992). *Eighth Plan, 2049-2054* . Kathmandu: NPC.

__________ (1994). Nepal Country Report. Submitted to the International Conference on Population and Development, Cairo, September 5-13.

__________ (1993). *Estimation of Intercensal Population Growth Rates of Districts During 1981-1991 period by Adjustment in Boundary Changes.* Kathmandu: NPC.

Nepal, Department of Statistics (DOS) (1957). Population Census 1952/54. (Kathmandu: Department of Statistics.

Nepal, Ministry of Housing and Physical Planning (MHPP), MSUD (1990). *Urban Infrastructure Service Delivery in Nepal: Toward a Model Framework.* Kathmandu: Ministry of Housing and Physical Planning, Department of Housing and Urban Development.

New Era (1981). *A Study on Inter-regional Migration in Nepal.* Kathmandu: National Commission on Population.

Ravenstein, E.G. (1885). The laws of migration. *Journal of the Royal Statistical Society,* vol. 48, pp. 167-235.

__________ (1889). The laws of migration. *Journal of the Royal Statistical Society,* vol. 52, pp. 241-305.

Rogers, A. (1967). A regression analysis of interregional migration in California. *Review of Economics and Statistics,* vol. 49, pp. 263-267.

Sharma, P. (1989). *Urbanization in Nepal.,* Papers of the East-West Population Institute, No. 110. Honolulu: East-West Centre.

Shrestha, C.B., Bhadra Pd. Jha, and Gobinda Koirala (1984). *Intra-Urban Movement of Population in Kathmandu City.* Kathmandu: CEDA, Tribhuvan University.

Shrestha, S., and Kaltenborn Lunde, A.M. (1990). *Female Headed Households in Squatter Areas.* Kathmandu: Task Project, Occasional Paper, MHPP/University of Trondhein.

Shryock, H.S., J.S. Siegel, and Associates (1980). *The Methods and Materials of Demography,* vol. 2. Washington D.C.: U.S. Department of Commerce.

Skeldon, Ronald (1992). International migration in the ESCAP region: A policy oriented approach. *Asia-Pacific Population Journal,* vol. 7, No. 2, pp. 3-22.

Stouffer, S.A. (1960). Intervening opportunities and competing migrants. *Journal of Regional Science,* vol. II, pp. 1-26.

Tachi, M. (1964). Regional income disparity and internal migration of population in Japan. *Economic Development and Cultural Change,* vol. 12, pp. 186-204.

Thapa, Yadav S. and Padma N. Tiwari (1977). *In-migration Pattern in Kathmandu Urban Areas.* Kathmandu: CEDA, Tribhuvan University.

Thapa, P. (1989). Trafficking of Girls and Women in Nepal. Background paper prepared for the National Seminar on the Girl Child, Kathmandu, 25-27 September.

Todaro, M.P. (1976). *Internal Migration in Developing Countries: A Review of Theory, Evidence, Methodology and Research Priorities.* Geneva: International Labour Organisation.

United Nations (1967). *Manual IV: Methods of Estimating Basic Demographic Measures from Incomplete Data.* New York: United Nations.

__________ (1974). *Manual VIII: Methods for Projections of Urban and Rural Population.* New York: United Nations.

__________ (1993). *World Population Prospects, The 1992 Revision.* New York: United Nations.

United Nations Childrens Fund (UNICEF) (1992). *Children and Women in Nepal: A Situation Analysis.* Kathmandu.

Weiner, M. (1973). The political demography of Nepal. *Asian Survey,* vol. 13, No. 6, pp. 613-63.

__________ (1985). On international migration and international relations. *Population and Development Review (New York),* vol. 2, No. 3, pp. 441-455.

World Bank (1991). *Nepal Poverty and Income, A World Bank Country Study.* Washington D.C.: World Bank.

Yami, H. and S.L. Mikesell (eds.) (1990). *The Issues of Squatter Settlements in Nepal.* Kathmandu: Concerned Citizens Group of Nepal.

Zelinsky, W. (1971) The hypothesis of mobility transition. *Geographical Review,* vol. 61, pp. 219-249.

Zipf, G.K. (1946). $(P_1 x P_2)/d$ hypothesis in intercity movement. *American Sociological Review,* vol. II, pp. 677-686.

IV. RURAL-URBAN MIGRATION IN THAILAND

Chintana Pejaranonda, Sureerat Santipaporn**
*and Philip Guest***

A. REVIEW OF LITERATURE

1. Thai migration patterns

(a) Historical patterns

By most accounts geographical mobility has been a recent characteristic of Thai society. Ingram (1955), Caldwell (1967), and Thomlinson (1971) all comment upon the geographical stability of the Thai population in the nineteenth and early twentieth centuries. The lack of comment about high levels of mobility from contemporary observers in nineteenth century Thailand, in contrast to observations in other Asian societies, would tend to support their claims, although it is likely that there were some types of movement which went largely unnoticed. Chief among these was the substantial rural-to-rural migration associated with expansion of the agricultural frontier. However, rural-to-urban migration was not an important migration stream. Until the period of about 1850, only a small-scale movement into urban areas can be claimed with some certainty as until this period there was a "prohibition against Thai peasants living in the commercial centre (the capital city), except as the state's artisans" (Elliot, 1978, p. 24).

Labour for the limited industrial growth, and the more substantial development of infrastructure, that took place in the second half of the nineteenth century and the first two decades of this century was mainly provided by Chinese immigrants (Skinner, 1957). At the same time the urban economy was controlled by Chinese and Western merchants acting in concert with the Thai nobility (Hewison, 1988). This effectively excluded the rural peasantry from the urban economy. After the dissolution of the system of absolute monarchy in 1932, one of the first acts of the new government was to state that it would attempt to improve the position of Thais relative to those of aliens, primarily Chinese (Skinner, 1957; Silcock, 1967). This provided more opportunities for Thais in the urban economy at a time when changes were also occurring in rural Thailand.

(b) Direction of migration

The rapid changes in rural and urban Thailand that took place during the twentieth century stimulated increases in the internal mobility of Thais (Thomlinson, 1971), with the economic and political primacy of Bangkok continuing to grow after the Second World War (Sternstein, 1979). The pattern of migration flows into Bangkok and elsewhere within Thailand are not random. Results from the 1960 census, the first census for which migration data were available, showed that the areas which had the highest levels of migration, both in and out, were located in the Central region of Thailand while the North-east region also experienced high rates of migration, primarily out-migration (Prachuabmoh and Tirasawat, 1974). These patterns changed somewhat in the following two decades. The Northern region, formerly with a net gain of population through migration, experienced a net loss of migration in the period 1975-1980. The Central region continued to gain population through inter-provincial migration, while the North-east region attained the dominant position as a supplier of migrants (Goldstein and Goldstein, 1986).

Thailand is a large country that, at the time of the 1990 Census, was divided into 73 changwat, or provinces (see map 1). The changwat are usually grouped into four regions, with the changwat of Bangkok being treated as an additional region. Data from the 1990 census

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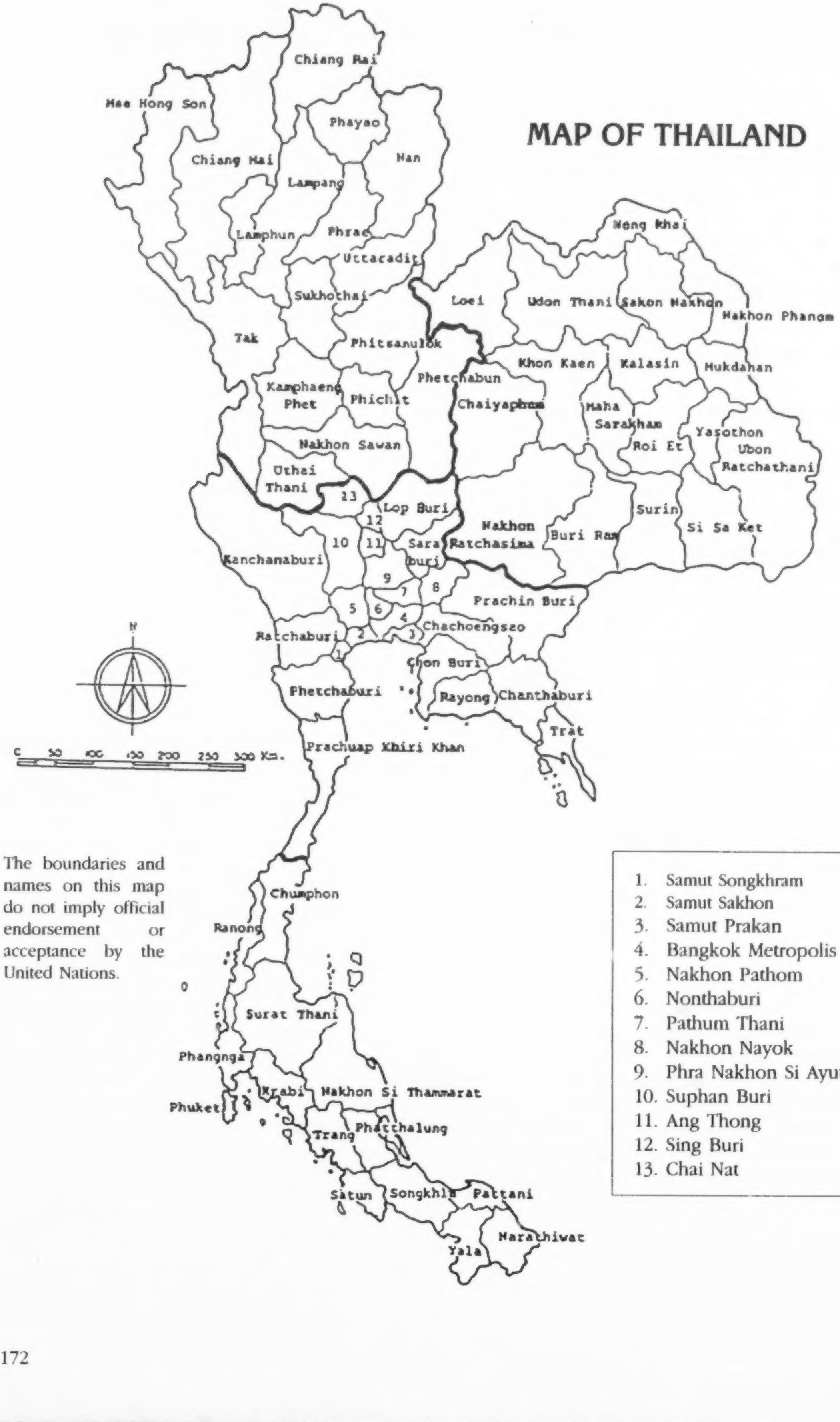
Map 1. Map of Thailand showing provincial boundaries, 1990


MAP OF THAILAND
Chiang Rai
Mae Hong Son
Phayao
Chiang Mai
Nan
Lampang
Lamphun
Phrae
Uttaradit
Sukhothai
Nong Khai
Loei
Udon Thani
Sakon Nakhon
Nakhon Phanom
Tak
Phitsanulok
Khon Kaen
Kalasin
Mukdahan
Phetchabun
Kamphaeng Phet
Phichit
Chaiyaphum
Maha Sarakham
Yasothon
Roi Et
Ubon Ratchathani
Nakhon Sawan
Uthai Thani
13
Lop Buri
12
Nakhon Ratchasima
Buri Ram
Surin
Si Sa Ket
10
11
Sara buri
Kanchanaburi
9
7
8
Prachin Buri
5
6
4
Ratchaburi
2
3
Chachoengsao
1
Chon Buri
N
Phetchaburi
Rayong
Chanthaburi
Trat
Prachuap Khiri Khan
0 50 100 150 200 250 300 Km.
Chumphon
Ranong
Surat Thani
Phangnga
Krabi
Nakhon Si Thammarat
Phuket
Trang
Phatthalung
Satun
Songkhla
Pattani
Yala
Narathiwat

The boundaries and names on this map do not imply official endorsement or acceptance by the United Nations.

1. Samut Songkhram
2. Samut Sakhon
3. Samut Prakan
4. Bangkok Metropolis
5. Nakhon Pathom
6. Nonthaburi
7. Pathum Thani
8. Nakhon Nayok
9. Phra Nakhon Si Ayutthaya
10. Suphan Buri
11. Ang Thong
12. Sing Buri
13. Chai Nat

indicate that regional patterns of migration experienced during the 1970s and 1980s have become more entrenched. Bangkok continues its dominance as a destination for migrants. In 1985-1990 the capital experienced a net gain of 372,200 recent migrants (645,100 in-migrants and 272,900 out-migrants). While this number was slightly more than double the number received in 1975-1980, it was a much smaller relative change than the six-fold increase experienced by the Central region over the same period. Most of the migration in the South occurred within the region. The Central and Northern regions have reversed in relation to their position in migration streams. The Central region, originally a supplier of migrants, now has a net gain in population from migration. The North, for many decades an agricultural frontier, has moved from net gains to net losses of migrants as the availability of land has been reduced.

The North-east was the major supplier of migrants. A number of explanations have been provided for the high levels of out-migration from the North-east. Porpora and Lim (1987) argue that the recent high levels of out-migration were a result of development efforts directed at the North-east which have raised aspirations while doing little to create the employment opportunities needed to fulfill heightened aspirations. Other explanations have concentrated on the social, transportation and information networks which have increasingly linked the North-east and Bangkok after the completion of the main highway between the regions. Channels of information concerning employment opportunities are directed towards Bangkok and migrants may therefore make a decision to move based on limited information about other potential destinations (Fuller, Lightfoot and Kamnuansilpa, 1985).

(c) Types of movement

Rural-rural migration has numerically been the main migration stream ever since migration data have been collected (Pejaranonda *et al.*, 1984; NSO, 1993). However, the share of migration that has been rural-rural has been decreasing. A major reason for decreases in this type of migration is the decline in the availability of land (Goldstein and Goldstein, 1986; Goldstein, 1987), a major factor stimulating Thai migration (Cochrane, 1979). Part of the flow to rural areas had been instigated by a Government resettlement scheme which, since its inception in 1940 until the 1970s, had resettled a total of 516,000 individuals (Institute of Population Studies, 1981). Landlessness, however, has increased dramatically in the Central region (Keyes, 1987), and pressure on agricultural land continues to grow.

The decrease in per cent of migrants who move among rural areas has been compensated for by increases in rural-to-urban migration and urban-to-rural migration (NSO, 1993). These changes have been related to several factors, including rapid expansion of the industrial and service economies, increasing disparities in rural and urban incomes, the spilling over of urban boundaries into what are still categorized as rural areas and the transfer of government staff to rural areas.

Another form of movement that, although acknowledged to be relatively common, is often undetected in most data sources, is temporary migration. Local surveys have demonstrated the importance of this form of movement (Fuller *et al.*, 1983; Singhanetra-Renard, 1981), especially from rural to urban areas. The National Statistical Office, in a series of studies designed to measure migration into large cities, confirmed that temporary migration makes up a high percentage of migration involving urban places. More recently, a national migration survey estimated that approximately one third of all migrants were temporary migrants and that the characteristics of these migrants were different from those normally found for permanent migrants (Chamratrithirong *et al.*, 1993). Temporary migrants, compared with permanent migrants, were more likely to be married, older, have lower levels of eduction and work in low status occupations.

2. Gender patterns

Although the probability of migration is higher for males than for females, in some streams, especially those to urban areas, females dominate. Using 1980 census data Archavanitkul (1988) observed a clear increase in sex ratios as the population of areas decreased. This was in large part due to the gender composition of migration streams. Flows to Bangkok, the major area of industrial and service sector employment, are particularly dominated by women (NSO, 1993). Although migrants are overwhelmingly concentrated in in the young adult ages, this concentration is greater for females than for males and is most evident in rural-to-urban migration streams (Guest, 1993). Manusphaibool (1991), analysing data from Labour Force Surveys carried out during the mid-1980s, reports that 61 per cent of migrants aged 15 and over were female, with most of the movers aged below 24 and unmarried. For the period 1985-1990 there was a net gain of female migrants to urban areas of 161,300 (NSO, 1993). The net exchanges of population at young adult ages are significant in terms of the proportion of the population that is involved. To take the extreme example of females aged 15-19 in 1990, the net gain of 80,300 migrants constituted 13 per cent of the urban population of females aged 15-19, although it was only a little over 3 per cent of the corresponding rural population.

Migration for women is positively associated with education. At ages 15-19 and 20-24 a higher proportion of migrants compared with non-migrants have attained a university education. Also, compared with the rural non-migrant population, rural-urban migrants are more highly educated (Guest, 1993). Approximately 11 per cent of males and 13.5 per cent of females gave education as their reason for migration in response to a question asked in the 1990 census (NSO, 1993). Thus, some of the higher propensity of the highly educated to move is due to migration made in order to attend higher levels of schooling.

However, the relationship between education and migration also holds for those persons well past the age of schooling. For example, for persons aged 25-29, over 40 per cent of female migrants had a secondary level of education or above while the corresponding percentage for non-migrants was 25. Compared with the rural non-migrant population, rural-urban migrants are more highly educated. The age-standardized per cent of female rural-urban migrants with a secondary or higher level of education was 30 compared with 8.7 per cent of rural non-migrants. In general migration is more selective for females (i.e., the differences between migrants and non-migrants are greater) than for males (Guest, 1993).

Census data from 1990 show that almost two thirds of the female urban non-migrants were in professional/administrative or clerical/sales occupations, but only 29 per cent of female rural-urban migrants were in those occupations. Almost 40 per cent of female migrants were engaged in production and transportation occupations, while a further 30 per cent were in service occupations (NSO, 1993). Labour Force Survey data show an even greater concentration of female migration in the service sector. Leenothai (1991) reports that almost 60 per cent of female migrants to Bangkok were in service sector occupations. The importance of the service sector in absorbing female migrants is seen from the results of a recent ESCAP study in which it was found that around 50 per cent of female service sector workers in Bangkok were recent migrants (United Nations, 1988). Migrants were mainly responsible for the growth in numbers in the service sector while Bangkok natives entered the formal sector.

Although the published census data are not sufficiently disaggregated to allow a direct comparison of migrant educational selectivity and occupational outcomes, some idea can be obtained by examining the results of the 1986 Labour Force Survey (NSO, 1988). Such an examination of migrants to Bangkok indicates that migrants, particularly females, at each level of educational attainment are found in high proportions in production and service occupations. For example, approximately 30 per cent of female migrants with university degrees were in service sector occupations. The available evidence suggests that while migration is educationally selective there is a mismatch of educational and occupational qualifications at the urban place of destination.

Most of the data on female migration in Thailand are from studies in which temporary forms of migration are not adequately measured (see Archavanitkul *et al.*, 1993). Chief among these temporary migration streams are the seasonal and circular migration that is often carried out in conjunction with variations in agricultural labour demands. It is during the agricultural seasons when demand for labour is low that migrants flock to Bangkok to search for work. The flows are particularly heavy during the dry season months of March to June. Results from a recent survey show that although women are less likely than men to engage in temporary migration, over 30 per cent of female migrants can be classified as temporary migrants (Chamratrithirong *et al.*, 1993)

Phongpaichit (1992) notes the growth of female migration, especially at young ages, into Bangkok. Based on a review of a number of data sources, she concludes that most of the women enter occupations in the informal sector where circular mobility is not constrained. While not appearing in survey results, she argues that the sex industry provides a large number of jobs to young women. The ease with which women can enter and exit many urban occupations and hence circulate between rural and urban centres has been described in Northern Thailand by Singhanetra-Renard (1981, 1987). She describes a situation in which women combine agricultural work with a variety of urban occupations, particularly petty trading and work in the construction industry.

3. Determinants of migration

Most of the explanations for migration in Thailand, and policies designed to affect migration flows, are macro-based. Many of these explanations differ region by region. In any account of Thai migration patterns the economic, demographic, and political dominance of Bangkok must be taken into account (Porpora and Lim, 1987). Government policies which have favoured urban dwellers, particularly those living in Bangkok, have also been argued to increase the attraction of Bangkok as a migrant destination (Tonguthai, 1987). The high rates of out-migration from Central provinces (changwat) and the relatively low rates from Southern and Northern changwat are probably partly a result of differential accessibility to Bangkok. In addition, for the Central region, integration into a national and international economic system has increased pressure on resources and therefore stimulated out-migration (Chiengkal, 1983; Keyes, 1987). In the North-east, migration seems to have arisen out of a combination of access to information in a situation of poverty and rising aspirations (Porpora and Lim, 1987).

Various forces which derive from, and contribute to, the differences in natural and development resources among regions have been identified as important determinants of migration. Chief among these are regional inequities in incomes and access to land (Goldstein and Goldstein, 1986). Other researchers have stressed the role that information flows play in instigating migration flows (Fuller *et al*., 1985). Most of the media are Bangkok based so the rural population is exposed primarily to the lifestyles of urban middle class residents through the media.

Recently there have been attempts to link the macro-economic policies of the government to rural-urban migration flows. Manusphaibool (1991) and Phongpaichit (1991, 1992) argue that government policies which have promoted export-led growth and the development of the service sector, especially the tourist industry, are associated with increased rural-to-urban migration, particularly migration to Bangkok. They note that several features of these migration streams, in particular the large numbers of young females involved and the high incidence of temporary migration, can be related to the labour demands of those sectors of the economy which have been promoted.

While much of the migration to Bangkok involves young women going to work in factories (see Porpora *et al*., 1989) and/or service sector (Phongpaichit, 1992), migration of poor rural women to work in factories is not confined to Bangkok. Taneerananon (1992), in a survey of female migrants to work in factories in Hat Yai in the south of Thailand, notes the many of the migrants came from the poorest of the Southern changwat. Singhanetra-Renard (1981) also documents the migration of women into Chiang Mai to work in a wide range of urban occupations, particularly petty trading and construction.

Individual-level determinants of migration have not been ignored in the analysis of Thai rural-urban migration. The studies of Singhanetra-Renard (1981, 1987) in the North of Thailand show the need for migration because of the lack of opportunities available in rural areas. She also notes, however, that most of the migrants wish to remain in rural areas and hence this gives rise to high levels of temporary migration. Fuller *et al*. (1983) also note that households in the North-east have come to depend on the remittances available from migration of family members to Bangkok. As it is the young, and often the females, who can get work in Bangkok, it is they who migrate. Other studies, including that of Taneerananon (1992) and Guest (1993) examine the demographic and educational selectivity of rural-to-urban migrants.

Guest and Praditwong (1989), using 1980 census data, attempted to combine macro and micro factors in a multilevel model to explain individual probabilities of migration. They found that indicators of integration into the national economy are of particular importance in explaining patterns of out-migration, with the per cent of the labour force in wage labour positively related to the probability of inter-provincial out-migration and the level of penetration of commercial banks into a changwat negatively related to out-migration. Access to information, measured by the past levels of migration flows and the provincial levels of literacy, was also an important determinant of out-migration. Significant individual-level effects of sex, age, and marital status also indicate that there are important life-stage factors that operate to structure rural-urban migration in Thailand.

4. Summary

A great deal of literature has been generated on Thai migration patterns over the last three decades. Much of this literature is descriptive and mainly involves a presentation of migration patterns obtained from census data. A second stream of literature is based on the results of small-scale surveys and/or ethnographic methods directed at several villages. These studies have provided valuable information on the motivations for migration and have been used to generate explanations of the determinants of migration.

B. DATA SOURCES AND METHODOLOGY

1. Survey of existing data sources

There are three main sources of migration data in Thailand. These are household registration, the census and a variety of sample surveys. Each of these sources has particular strengths and weaknesses in the Thai context.

A system of household registration is maintained by the Ministry of Interior and registration is legally required for all citizens of Thailand. Changing the place of household registration when changing place of residence is also required by the regulations. However, unless a change of residence is permanent, and/or family members are no longer living at the former place of registration, it is debatable as to how many people promptly change their registration when they move. This situation is exacerbated in that there is little or no attempt to enforce the regulations regarding changes of residence. The present situation appears to be that although it is necessary to have household registration the place of registration is not a major issue. Therefore it is recognized by most researchers that registration data are not suitable for analyzing migration patterns, although they have been widely used to analyze urbanization patterns.

The census provides the main source of migration data in Thailand. The census can be used to analyze lifetime migration or migration within any fixed period. This is possible as the question asked in the census is the period that the respondents have resided at their current usual place of residence. Questions are also asked about the location of the previous place of residence, including whether it was in an urban (municipal) or rural (non-municipal) location. Therefore, it possible to determine the direction of the last move. Data from the census can be used to examine migration streams down to the provincial level, of which there were 73 in 1990. In most cases, however, migration data are published using the region as the main geographical unit.

There have been numerous surveys conducted in Thailand that have collected data on migration. Several of these surveys provide estimates at the national level although most target small geographical areas. Most of the nationally representative surveys collect information on migration only as an adjunct to other topics. The first national survey which collected information on migration was the 1954 Demographic and Economic Survey of Thailand. The migration questions, however, were limited in this survey and little was done with the migration data. Some large surveys conducted by universities, for example, the National Longitudinal Study of Social, Economic and Demographic change in Thailand conducted by Chulalongkorn University in 1969 and 1970, also collected information of migration, although the focus, as in most of the large surveys, was on fertility measurement.

The National Statistical Office (NSO) conducts a number of surveys in which migration data are collected. Chief among these are the labour force surveys which are carried out three times each year. The definitions of migration employed are similar to those of the census, with the chief advantage of the data over census data being the comprehensive employment data available from the surveys. As the survey is carried out three times each year it is also possible to compare results from different rounds and hence obtain some understanding of seasonal patterns operating in the migration process, although the methodology employed results in seasonal migrants being under-enumerated.

In 1992 a National Migration Survey involving some 32,000 households was fielded by the NSO. This survey is meant to replace the series of surveys on migration into major cities first conducted in 1974 and is carried out in conjunction with one of the rounds of the Labour Force Survey. The survey, to be carried out every two years, is planned to be expanded to 60,000 households to allow provincial level estimates of migration to be made. The Institute for Population and Social Research (IPSR), Mahidol University, also carried out a national survey on migration (NMS) in 1992. This survey of 7,500 households collected detailed information on the circumstances surrounding migration.

While specialized surveys undoubtedly are the best source of data for attempting to understand the complexity of the migration process, they are usually restricted in their geographical focus. For this reason, census data remain the most appropriate source of data for national level estimates on the level, patterns and composition of migration streams.

2. Concepts and definitions employed

(a) Migration

The Thai census is conducted on what is essentially a *de jure* basis (the institutional population is counted on a *de facto* basis while enumerating students may involve *de facto* or *de jure* procedures depending on the individual student's situation). Persons are recorded in their usual place of residence. The definition of usual place of residence in the 1990 Thai census was the place where a person usually eats and sleeps. Other surveys which have as one of their aims the measurement of temporary migration are more likely to take a modified *de facto* approach to measurement. For example, the special series of studies of movement into large urban centres in Thailand that was conducted by the National Statistical Office (NSO) enumerated any person who came to live in the surveyed city within a specified reference period (see NSO, 1991). This was not a true *de facto* approach as persons who had already left the city were also enumerated.

The census uses the village and the municipality as the two spatial units in the definition of migration. Compared to many other countries, this provides a fine level of geographic detail. There is no minimum time period used in census definitions for defining a migrant. This relates to the use of 'usual residence' to establish location. As long as persons have been in their usual place of residence less than a stipulated time period, they are defined as migrants. Analyses of census data conducted by NSO and other persons using census data typically adopt a five-year time period to differentiate between migrants and non-migrants, with migrants defined as persons living in their current (usual) place of residence less than five years.

Several other surveys conducted by the NSO that collect migration data, for example the Labour Force Surveys, use the same geographical and time definitions as used in the census (NSO, 1988). The NMS conducted by Mahidol University uses a two-year time period with a migrant being defined as a person who has moved across a tambon (sub-district) boundary for a least one month in the two years before the interview.

(b) Urbanization

There is no official urban or rural definition in Thailand. Most government agencies have traditionally presented data for municipal and non-municipal areas, with the former being designated as urban and the latter as rural. For a city to be designated as a municipality it is required to meet certain criteria. There are different criteria depending on the type of municipality. For example, Muang Municipalities are defined primarily in terms of their functions as administrative centres of each changwat. According to the 1953 Municipality Act, a town can also become a Muang Municipality on the basis of population criteria (at least 10,000 persons and an average density of 3,000 per square kilometer) and financial criteria (a revenue base sufficient to carry out municipal functions). A Nakorn Municipality requires a population of 50,000 persons and an average density of 3,000 or more per square kilometer plus a sufficient revenue base. Currently there are two Nakorn Municipalities, Bangkok and Chiang Mai. There are no specific criteria for designation as a Tambon Municipality; they are established by decree. In 1990 there were 2 Nakorn Municipalities, 85 Muang Municipalities and 46 Tambon Municipalities (Tirasawat, 1992). There was an addition of 14 municipalities between 1980 and 1990.

Another Act provides for the designation of centres as Sanitary Districts. There are several criteria for designating a locality as a Sanitary District. An amphoe (district) or tambon administrative centre can be classified as a Sanitary District if it has a specified level of revenue. If a centre is not an amphoe or tambon administrative centre, it can still be classified as a Sanitary District if revenue is at a higher level. There is also a requirement of a minimum number of persons (1,500) within a prescribed area (not larger than 3 square kilometers). A further provision is that the population of an area must agree to their town being designated as a Sanitary District. The number of Sanitary Districts changes much more rapidly than that of municipalities, with an increase from 707 in 1980 to 843 in 1990.

3. Comparability over time

One of the major advantages of the use of census data in studying migration in Thailand is that trends over time can be analyzed. Questions which directly obtain information on migration have been asked in the last four censuses. In the 1960 census there were questions about the changwat of birth and the changwat of residence five years before the census. The 1970, 1980 and 1990 censuses contained questions about changwat of birth, period of time lived in current residence and, where the period of residence was less than five years, the previous place of residence (changwat and amphoe) and whether the previous place was urban or rural. In the 1980 and 1990 censuses a further question was asked about the main reason for the last move.

4. Limitations of data

The data available on migration from the Thai censuses are much more extensive than those available from the censuses of most other countries. The census data are designed to measure migration that involves a change in usual place of residence, and they probably succeed as well as any other survey-based technique in capturing this form of movement. The one area in which they are most likely to be deficient in this regard is in capturing return migration. For example, migrants who change their place of usual residence several years before a census but return to their previous place of residence before the date of the census would not be recorded as migrants. The census, with its focus on the last move, also cannot provide information on multiple moves.

What the census does not measure well, and is not designed to measure, is temporary moves. There are two reasons why it is likely that censuses only capture a small percentage of these moves. The first reason concerns the use of the definition of usual place of residence. The decision about the location of the usual place of residence is mainly up to the judgement of the person answering the question, although a six-month interval is specified. It is likely in this situation that temporary migrants and their families would correctly indicate their place of origin as their usual place of residence (see United Nations, 1982). For most purposes for which the census is used, this is the preferred answer. However, this approach can lead to serious under-estimation of temporary migration.

The second reason is that movement is tied to current residence. Much temporary migration involves circulation between origin and destination, therefore only if the migrant is enumerated in the place of destination will he or she have a chance of being considered a migrant. Neither the timing of migration nor the census are random; temporary migration is more likely during the dry season months and the census is held during this period (in 1990 Census day was 1 April), hence the timing of the census increases the potential to identify some temporary migrants.

The use of villages and municipal areas as the geographical unit for the definition of migration also has implications for the type of data collected. For example, as much of the movement that occurs upon marriage is likely to be within a local area, the use of a village as the migration defining unit will result in much of this movement being recorded. On the other hand, by treating a municipal area as a single unit, most residential mobility will not be recorded.

The main limitation of data on urbanization is that designation as a municipal centre is by legislation and is not automatic upon reaching minimum standards. The result is that change in the number of centres has not kept pace with increases in population size. In fact there has been remarkably little change in the number of centres designated as municipal. Most municipalities were first designated as such in the mid-1930s. At the time of the establishment of the Municipalities Act there were 116 municipalities, this increased by 4 to 120 in 1980, and a further addition of 13 took the total to 133 in 1990. Many places which have developed urban characteristics have not been accorded municipality status and are usually found in the category of Sanitary Districts.

This has prompted some researchers to argue that some Sanitary Districts should be included in definitions of urban (Goldstein, 1978; Robinson and Wongbuddha, 1980; Tirasawat, 1992). However, other researchers note that only some of the larger Sanitary Districts can be truly classified as urban. Because of the difficulties in deciding upon the appropriate classification, and because data are often not made available separately for Sanitary Districts, it is usual to retain the municipal/non-municipal distinction when analysing spatial patterns of migration.

5. Range of data available

(a) Internal migration

The census data on internal migration can be cross-classified by all the demographic and economic characteristics available in the censuses. Much of the information is available in published form (NSO, 1993), while special tabulations can be carried out using the 1.2 per cent sample of the 1990 census, and similarly sized samples of the 1970 and 1980 censuses. The geographical origins, including both the place of origin and the urban-rural character of the origin, can be determined from census data. Information on temporary movements can be obtained from the NMS.

(b) International migration

There is very little information available on international migration to and from Thailand. The main source of information is data collected at the borders by the immigration office, although these data have not generally been available for research purposes. Much of the research that has been undertaken has used information obtained from the Ministry of Labour on flows of contract labour (see Huguet, 1992), and immigration statistics of receiving countries (see Skeldon, 1992).

It is possible to obtain information from the census about persons whose last place of residence was outside the country. A special module of the NMS which was used to gather information about persons who had left the household in the two years prior to the survey can also be used to obtain some information about movement out of Thailand.

(c) Reasons for migration

The data collected in the 1980 and 1990 censuses on primary reasons for moving have been coded into several categories. Four main categories of move are provided: economic, education, family and unknown. Economic reasons are further sub-divided into: to look for work, to take or change a job, to transfer employment, and other job-related reasons. Family reasons are sub-divided into: to marry, to accompany person in the household, to return home, to go to another residence, and other family reasons.

6. Complementarity of data sources

The main source of data used in this report is the population censuses of the Kingdom of Thailand. Most of the analysis will focus on tabulations from the 1990 census. Two types of census data are employed. For many of the basic tables the full count of the census is used while for other tables the 1.2 per cent sample of the full count is employed to generate tables. The samples of the 1970 and 1980 censuses are also used to obtain information about trends. The sample drawn from the 1990 housing census was merged with the sample from the population census to provide information about housing conditions of migrants.

As noted above, the census is best at obtaining information about what can be referred to as permanent migration. However, temporary migration is likely to be underestimated using census data and hence results from the 1992 NMS conducted by IPSR at Mahidol University will be used to supplement the census data where necessary. Also used for the purpose of supplementing the census data is information from the Labour Force surveys which are carried out three times a year.

7. Methodology

As the primary purpose of this report is to present more detailed information on rural-urban migration than that usually made available in census reports, the major method of analysis is the presentation and interpretation of descriptive information. Most of this information is provided in tabular form, with migration patterns detailed for selected social and demographic characteristics of the population. Although the emphasis is placed on describing rural-urban migration, these patterns can only be interpreted in relation to other migration flows. Hence the characteristics of rural-to-urban migrants are compared with non-migrants and migrants who engage in other migration flows. Where information is available, rural-to-urban migration is divided into migration to Bangkok and migration to other urban areas. This categorization is undertaken because of the dominance of Bangkok in the urban hierarchy and the expectation that this dominance affects the types of rural-urban migration flows in Thailand.

Decomposition of changes in structure of the population are presented in the report. In Chapter 3 changes in levels of urbanization are decomposed into that component due to rural-urban migration and that which can be attributed to natural growth of the population. In Chapter 5 the descriptive analysis is extended to include a decomposition of changes in labour force structure of urban areas. In this analysis the change in occupational structures in Bangkok and other urban areas is decomposed into that which can be attributed to migrants within urban areas, non-migrants, rural-to-urban migrants and urban-to-rural migrants.

C. TRENDS AND PATTERNS OF RURAL-URBAN MIGRATION

1. Trends in urbanization

(a) Municipal vs. non-municipal

Thailand, when compared with other countries at similar levels of development, has experienced relatively low levels of urbanization. However, the tempo of urbanization is increasing faster than in many comparable countries. Furthermore, urbanization in Thailand is characterized by an urban system which exhibits an extreme level of population and economic dominance of one city – Bangkok – a feature which has created a series of challenges for urban planners.

The data presented in the top panel of table 1 indicate that the urban population of Thailand, as measured by the per cent of the total population residing in municipal areas, was 18.7 per cent of the total population in 1990. Urban growth in the last three decades has far outstripped the growth of the total population, exceeding 2 per cent in each of the last three decades. In the period 1980-1990, the population in municipal areas grew by 2.5 per cent per annum, compared with 3.3 per cent and 5.5 per cent in the periods 1960-1970 and 1970-1980, respectively.

Table 1. Urban population size, rate of urban growth, level of urbanization and rate of change in urbanization levels, Bangkok Metropolis and the Whole Kingdom: selected years and alternative urban definitions

Measure	*Year*	*(1) Bangkok Metropolis*	*(2) Whole Kingdom*	*(1)/(2)*
Urban population[a]	1960	2 136 435	3 273 865	0.65
	1970	3 077 361	4 553 102	0.68
	1980	4 870 000	7 928 000	0.61
	1990	5 875 900	10 206 900	0.58
Per cent urban	1960	–	12.5	–
	1970	–	13.2	–
	1980	–	17.0	–
	1990	–	18.7	–
Annual percentage growth in urban population	1960-1970	3.65	3.30	1.11
	1970-1980	4.59	5.55	0.83
	1980-1990	1.88	2.53	0.74
Annual percentage growth in per cent urban	1960-1970	–	0.60	–
	1970-1980	–	2.48	–
	1980-1990	–	0.98	–
Urban population[b]	1975	4 349 494	10 157 989	0.42
	1980	5 153 902	12 446 030	0.41
	1985	5 363 378	14 331 308	0.37
	1988	5 716 779	15 787 203	0.36
Per cent urban	1975	–	24.0	–
	1980	–	26.5	–
	1985	–	27.7	–
	1988	–	28.7	–
Annual percentage growth in urban population	1975-1980	3.39	4.06	0.83
	1980-1985	0.80	2.82	0.28
	1985-1988	2.13	3.23	0.66
Annual percentage growth in per cent urban	1975-1980	–	2.69	–
	1980-1985	–	1.18	–
	1985-1988	–	1.74	–

Sources: For the top panel data are derived from the census reports of the respective censuses. The 1990 data come from the advance report of the 1990 census (NSO, 1992). The data for the bottom panel come from Penporn Tirasawat, *Patterns and Trends of Urbanization,* Background Report No. 2.2 of the National Urban Development Policy Framework, 1990.

Notes:

[a] The definition of urban used in the top panel is all inhabitants of municipal areas.

[b] The definition of urban used in the bottom panel is inhabitants of municipal areas and, in addition, those persons living in Sanitary Districts with populations exceeding 5,000 persons.

The apparent slowdown in urban population growth during the last decade must be treated with caution. At least three factors are associated with this trend. (1) Much of the urban growth of the 1980s occurred in large Sanitary Districts located close to municipal areas, particularly Bangkok. (2) The early 1980s was a period in which economic performance was hampered by large increases in oil prices and stagnant export growth. It is likely that poor economic conditions reduced levels of rural-urban migration during this period. Economic growth rebounded in the latter half of the 1980s, with growth particularly impressive in the export sector. (3) A significant portion of the urban growth occurring during the 1970s was due to expansion of urban boundaries (United Nations, 1982). This was a much more important source of urban growth in the 1970s than it was in the 1960s and, although conclusive data are not yet available, was probably a more important source of growth than in the 1980s. As urban growth has been proceeding at a more rapid pace than the growth of the rural population, changes in levels of urbanization have been positive.

The urban system of Thailand is dominated by the capital city of Bangkok, a city which in terms of population size was ranked the 26th largest in the world in the 1980s. Of the approximately 10.2 million persons residing in municipal areas in 1990, almost 6 million (58.8 per cent) were living in Bangkok (NSO, 1992). This percentage is reduced considerably when the broader definition of what constitutes the urban population is employed, but the dominance of Bangkok remains regardless of the definition employed.

However, the primacy of Bangkok is declining. This is due in part to policy measures designed to alleviate the flow of the population to Bangkok, and in part to infrastructure problems associated with the rapid development of the capital. To a limited extent urban growth has been diverted away from Bangkok. The number of urban places (municipal areas and large Sanitary Districts) with populations greater than 100,000 increased from two in 1975 to 10 in 1988 (table 2.)

While the data indicate a lessening of the urban primacy of Bangkok, they are somewhat deceiving for persons not familiar with the geography of Thailand. Three of the places listed as having a population greater than 100,000 in 1988 (Nonthaburi, Phra Pradaeng and Pak Kret) are located in changwat directly adjacent to Bangkok. In fact, the annual rate of urban growth in the five changwat that are adjacent to Bangkok (Nonthaburi, Samut Prakan, Pathum Thani, Samut Sakhon and Nakhon Pathom)--an area usually referred to as 'Bangkok Vicinity'--was over 4 per cent in each of the periods 1975-1980, 1980-1985, and 1985-1988. In the latter period the annual growth rate exceeded 10 per cent, an amount that was considerably increased by reclassification and expansion of existing urban boundaries. The other area in which urban growth rates were consistently high for the three periods was the East, an area which is also close to Bangkok.

Table 2. Urban centres with population size exceeding 100,000: 1975, 1980, 1985, 1988

1975		*1980*		*1985*		*1988*	
Bangkok	4 349 494	Bangkok	5 153 902	Bangkok	5 363 378	Bangkok	5 716 779
Chiang Mai	100 837	Chiang Mai	100 146	Nakhon Ratchasima	200 051	Nonthaburi	218 354
				Chiang Mai	155 471	Nakhon Ratchasima	204 892
				Khon Kaen	123 559	Phra Pradaeng*	164 597
				Hat Yai	123 389	Chiang Mai	164 030
				Phra Pradaeng*	119 829	Hat Yai	138 046
				Nakhon Sawan	100 443	Khon Kaen	131 340
						Nakhon Sawan	105 220
						Pak Kret*	102 747
						Ubon Ratchathani	100 374

Source: Tirasawat, 1990.

Notes: Urban places are defined as municipal areas or sanitary districts with populations in excess of 5,000 persons. Urban places marked with an asterisk (*) are classified as sanitary districts. Data are from household registration statistics.

Most of the population change reported in table 2 occurred through growth that took place within existing urban boundaries. In some cases, however, rapid growth was a result of readjustment of urban boundaries made in order to more accurately reflect the urban character of much of the surrounding areas of large cities in Thailand. This is seen, for example, in the appearance in 1988 of Nonthaburi as the second largest urban centre in Thailand. The high annual growth rate of Nonthaburi can be observed in table 3, where the population of the ten largest municipal areas in Thailand is shown for 1970, 1980 and 1990. Also shown are the annual growth rates for the intercensual periods 1970-1980 and 1980-1990. Nonthaburi grew at an annual rate of 21.3 per cent between 1980 and 1990, a result primarily of an increase in the size of the urban area from 3 square kilometers in 1980 to 38.9 square kilometers in 1990. In the same period the annual growth of Bangkok was 2.3 per cent, a decline from the annual rate of 6.5 per cent recorded in the period 1970 to 1980.

Table 3. Population size and annual growth rates of the ten largest municipal areas: 1970, 1980, 1990

1970		*1980*			*1990*		
City	*Population*	*City*	*Population*	*Growth rate*	*City*	*Population*	*Growth rate*
Bangkok-Thonburi	2 495 286	Bangkok Metropolis	4 697 071	6.5	Bangkok Metropolis	5 882 411	2.3
Chiang Mai	83 729	Chiang Mai	101 594	2.0	Nonthaburi	223 024	21.3
Nakhon Ratchasima	66 071	Nakhon Sawan	93 935	7.2	Nakhon Ratchasima	208 133	10.3
Udon Thani	56 218	Hat Yai	93 519	6.9	Chiang Mai	166 883	5.1
Hat Yai	47 953	Khon Kaen	85 863	11.3	Hat Yai	142 592	4.3
Nakhon Sawan	46 853	Phitsanulok	79 942	9.0	Khon Kaen	126 059	3.9
Samut Prakan	46 632	Nakhon Ratchasima	78 246	1.7	Nakhon Sawan	103 648	1.0
Songkhla	41 193	Udon Thani	71 142	2.4	Ubon Ratchathani	95 002	6.5
Nakhon Sri Thamarat	40 671	Songkhla	67 945	5.1	Songkhla	85 806	2.4
Ubon Ratchathani	40 650	Nakhon Sri Thamarat	63 162	4.5	Nakhon Sri Thamarat	74 611	1.7

Source: 1970, 1980 and 1990 Population Censuses.

(b) Municipal & sanitary districts vs. non-municipal

Use of urban sanitary districts in the definition of urban, compared with using only municipal areas in the definition, can result in large differences in the estimated levels of urbanization and rates of urban growth. For example, Tirasawat (1990), using Ministry of Interior household registration data, estimates that in 1988, 18.2 per cent of the population of Thailand lived in municipal areas of Thailand and a further 10.5 per cent lived in sanitary districts with populations over 5,000 (see bottom panel of table 1). Seven sanitary districts – Phra Pradaeng, Pak Kret, Bang Pu, Ao Udom, Chom Phu and Nong Bua – were listed in the 25 localities with the largest populations, while two – Phra Pradaeng and Pak Kret – had populations in excess of 100,000 and were in the top 10 largest centres (table 2).

The growing component of the population residing in sanitary districts can be observed in the data from the 1980 and 1990 censuses displayed in table 4. The numbers, although slightly different from those shown above because they are based on data from different sources, confirm the trend towards high growth in large sanitary districts. In 1980, 17 per cent of the population lived in municipal areas, with a further 6.6 per cent living in sanitary districts (urban sanitary districts) that contained five thousand or more population and 2.7 per cent living in other sanitary districts (rural sanitary districts). In 1990, the per cent living in municipal areas had increased slightly to 18.7 per cent, the per cent living in rural sanitary districts declined by 0.4 percentage points and there was an increase in the per cent living in urban sanitary districts of 1.8 percentage points to 8.4 per cent.

Table 4. Percentage distribution of population by status of area of residence: 1980, 1990

Area	*1980*		*1990*	
	Number	*per cent*	*Number*	*Per cent*
Total population	44 824 540	100.0	54 548 530	100.0
Municipal Area	7 632 916	17.0	10 215 098	18.7
Urban Sanitary District	2 962 364	6.6	4 583 805	8.4
Rural Sanitary District	1 228 796	2.7	1 250 510	2.3
Other	33 000 460	73.6	38 499 117	70.6

Source: 1980 and 1990 Censuses.

Note: An Urban Sanitary District is defined as a Sanitary District with a population of 5,000 or more persons. Rural Sanitary Districts have populations less than 5,000 persons.

Much of the population growth that occurred in the 1980s took place on the fringes of existing municipalities, precisely those areas which are often defined as sanitary districts. Thus claims that the rate of urbanization of Thailand is low and even decreasing are in large part due to the exclusion of sanitary districts from the analysis. Based on municipal areas alone, the annual rate of urban growth between 1980 and 1990 was 2.53 per cent, a decline from the 5.55 per cent recorded in the previous decade. If sanitary districts are include in the definition, the annual rate of urban growth is 2.82 per cent for the period 1980-1985 and climbs to 3.23 for the period 1985-1988 (table 2).

2. Migration patterns

(a) Levels of migration

The census data shown in table 5 indicate that approximately 8 per cent of the Thai population aged 5 years and over had been living in their current village or municipality for less than 5 years. This represents a slight increase over the period 1975-1980 but is much lower than the 11.6 per cent recorded as recent migrants in 1965-1970. The main migration streams in the five years prior to the 1990 census were relatively long-distance, involving movement across regional boundaries.

Table 5. Percentage distribution of recent migrants aged 5 years and over by migration status and region: 1985-1990

Region of current residence	*Total population aged 5 years and over*	*Non-migrants*	*Migration status*				
			Within provinces	*Between provinces within region*	*Between regions*	*Abroad or unknown previous residence*	*Unknown migration status*
Whole Kingdom	100.0	90.5	2.5	1.5	3.0	1.0	1.5
Bangkok Metropolis	100.0	83.7	–	–	11.6	1.7	3.0
Central	100.0	86.7	3.4	2.2	5.0	1.1	1.6
North	100.0	92.1	2.7	1.3	1.3	1.3	1.3
North-east	100.0	93.8	2.4	1.6	0.6	0.4	1.2
South	100.0	91.6	3.2	1.9	1.3	1.1	0.9

Source: National Statistical Office, 1993.

Note: Those of 'unknown migrant status' may be migrants or non-migrants.

Only 1.5 per cent of the population moved their changwat of residence within regions, and a further 2.5 per cent moved within a changwat.

The data display large regional differences. Compared with other regions, a greater proportion of the population of Bangkok were migrants. Bangkok was closely followed by the Central region in the percentage of the population who were migrants. The North-east had the lowest proportion of their 1990 population who were classified as migrants. The Central and North-east region provide an interesting comparison. On the one hand, while 5 per cent of the population of the Central region had moved between regions, the corresponding figure for the North-east was only 0.6 per cent of the population. On the other hand, similar proportions of the populations of the two regions had moved between changwat within the region, and within a changwat.

The population of the North-east is not immobile when compared with the population of the Central region. In fact the North-east, the poorest region of the country, is the major source of migrants, with the Central region being an important destination region. Only Bangkok and the Central regions, with net migration rates of 6.7 and 2.6 respectively, experienced a net gain of migrants over the period 1985-1990 while the North-east, North and South regions experienced net losses, respectively, of 3.2, 0.9 and 0.2 per 100 population 5 years and over. Almost 43 per cent of the 662,100 interregional migrants from the North-east went to the Central region while a further 46 per cent moved to Bangkok (NSO, 1993). In fact, the six largest migration streams to Bangkok during the period 1985 to 1990 originated from changwat in the North-east region (map 2). The largest stream, comprising almost 35,000 migrants, originated from the distant changwat of Ubon Ratchasima.

The high level of out-migration from the North-east is related to a lack of income and employment opportunities in much of that region, while the high levels of in-migration to the Central region and Bangkok are associated with the availability of employment opportunities and high wages in those areas. The factors which motivate persons to move in order to obtain higher incomes, and the choice of destination of their moves, are not clearly understood. The North-east has experienced net losses of migrants since migration has been measured in the censuses (1960). Yet losses did not really escalate until the period 1975-1980, although the North-east has remained the poorest region for many decades.

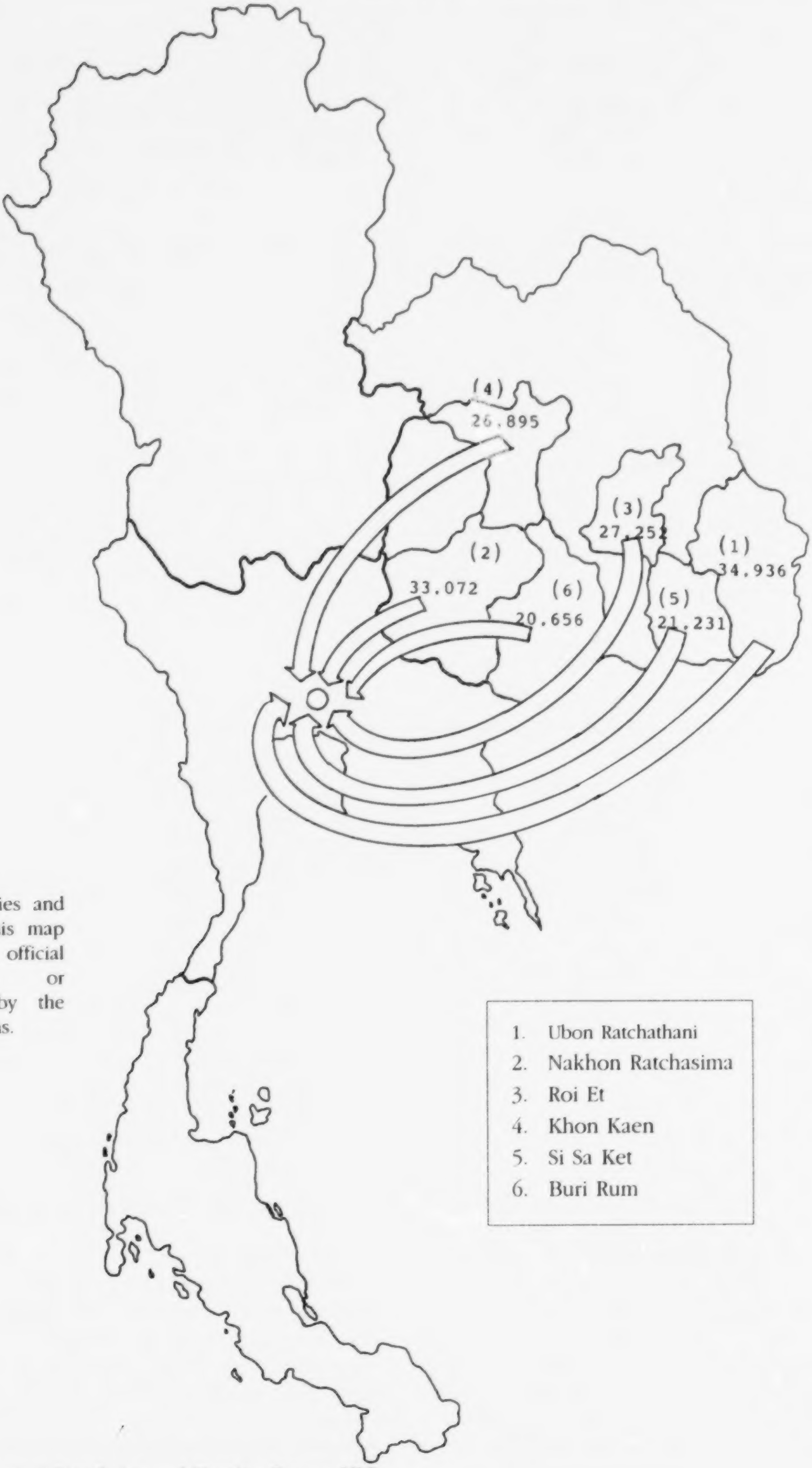
The Southern region is more geographically isolated, and the patterns of movement, which involve a high proportion of movement occurring within the region, reflect this isolation. Over the last four decades the regions which have undergone the greatest change in population exchanges with other regions are the North and Central regions. The North, which gained over 30,000 migrants in the period 1955-1960 and 6,000 in 1965-1970, suffered a net loss of almost 18,000 in the five years before the 1980 census and a further 85,000 from 1985 to 1990. The Central region experienced large net losses until the period 1975-1980 when if gained almost 50,000 persons; it gained a further 295,000 in the period 1985-1990. Much of the recent net loss of population from the North can be attributed to a lack of land available for agricultural expansion. The Central region has benefitted from the economic dynamism of Bangkok and now acts to absorb some of the migration stream that would otherwise be directed to Bangkok. The attraction of Bangkok as a migration destination continues. In 1985-1990 the capital experienced a net gain of 372,200 recent migrants (645,100 in-migrants and 272,900 out-migrants). While this number was slightly more than double the number received in 1975-1980, it was a much smaller relative change than the six-fold increase experienced by the Central region over the same period.

(b) Migration streams

The relative balance of rural- and urban-directed streams has also changed. In table 6 data on migration streams measured in the last three censuses are presented. By far the most dominant stream in all three periods was rural-rural migration. This stream made up almost two-thirds of all moves in the period 1965-1970 and four out of ten moves 20 years later. While many of the rural moves are probably the relocation of a spouse at the time of marriage, there has also been large rural-rural migration streams related to government-sponsored rural resettlement schemes. The latest scheme, which at present is in abeyance, planned to relocate millions of rural inhabitants, primarily from the North-east, who are currently living in what are designated as forest areas. Those moved were to be provided with farming land in other areas.

The decrease in per cent of migrants who moved from one rural area to another is largely compensated for by increases in rural-urban migration and the counter-stream of urban-rural migration. Over 18 per cent of all recent migrants in

Map 2. Volume and source of six largest migration streams to the Bangkok Metropolis, 1985-1990


(4)
26,895
(3)
27,252
(1)
34.936
(2)
33.072
(6)
20.656
(5)
21.231

The boundaries and names on this map do not imply official endorsement or acceptance by the United Nations.

1. Ubon Ratchathani
2. Nakhon Ratchasima
3. Roi Et
4. Khon Kaen
5. Si Sa Ket
6. Buri Rum

Source: 1990 Population and Housing Census, NSO.

Table 6. Migration streams of migrants: 1965-1970, 1975-1980, 1985-1990

Migration stream	*1965-1970*		*1975-1980*		*1985-1990*	
	Number	*Per cent*	*Number*	*Per cent*	*Number*	*Per cent*
Population age 5 and over	28 736 400	100.0	38 940 500	100.0	50 065 700	100.0
Non-migrants	25 405 300	88.4	35 922 800	92.4	46 039 600	92.0
Migrants	3 331 100	11.6	2 947 700	7.6	4 026 100	8.0
Migration Streams						
Urban-Urban	297 000	8.9	506 000	17.2	545 100	13.5
Rural-Urban	348 000	10.5	420 600	14.3	738 400	18.4
Unknown-Urban	118 400	3.6	98 300	3.3	165 200	4.1
Total migrants with urban destination	763 400	23.0	1 024 900	34.8	1 448 700	36.0
Rural-Rural	2,086 700	62.6	1 532 900	52.0	1 645 100	40.9
Urban-Rural	180 400	5.4	278 300	9.4	508 900	12.6
Unknown-Rural	300 600	9.0	111 600	3.8	423 400	10.5
Total migrants with rural destination	2 567 700	77.0	1 922 800	65.2	2 677 400	64.0

Source: National Statistical Office, 1993.

Note: Recent migrants are defined as those persons who had lived in their current village or municipality of residence less than 5 years.

1985-1990 moved from rural to urban areas while 12.6 per cent moved from urban to rural areas. There are several explanations for the growing importance of rural-urban migration: (1) new employment opportunities are concentrated in urban-based service and manufacturing industries; (2) the traditional means of increasing agricultural employment – extending the area under cultivation – is no longer an option because of a lack of suitable land; (3) there has been increased mechanization in agriculture, and this has reduced the need for agricultural labour; (4) the human resources of the population, particularly levels of education, have increased, which has increased aspirations for employment in non-agricultural employment; (5) urban incomes have risen much faster than rural incomes; and (6) the number of places classified as urban has increased.

The large urban-rural counterstream can be explained in part by: (1) return migration of former rural-urban migrants; (2) the increasing affluence of a large segment of the urban-employed population, which enables them to live in the rural periphery of urban places and commute to work; (3) the increasing cost of urban land, which forces people to relocate to the rural periphery of urban places and commute to their urban places of employment; and (4) policies of rural development, which promote the transfer of government workers to work in rural areas.

3. Temporary vs. permanent migration

Census and household registration data are likely to underestimate the impact of migration on urban growth as these sources of data do not include many of the large numbers of temporary migrants who circulate, often on a seasonal basis, between rural and urban areas. Although there have been indications that such migrants make up a large proportion of all migrants, particularly to Bangkok, until recently no survey had been carried out with the specific purpose of measuring the national incidence of temporary migration. The results provided in the following sections are based on the National Migration Survey (NMS) conducted by the Institute for Population and Social Research, Mahidol University in 1992.

(a) Extent of temporary migration

Even though the NMS and 1990 census used different definitions and data collection techniques (Archavanitkul *et al.*, 1993) the difference in five-year migration rates is dramatic. The NMS recorded approximately 25 per cent moving for more than one month in the five-year period before the survey in 1992, compared with the 8 per cent enumerated by the census as changing their place of residence. Much of this difference is due to the inclusion of movements within urban areas into the migration definition by the NMS, while the census does not include these moves as migration. However, another reason for the differences is the high levels of temporary movement in Thailand.

In the NMS a special series of questions was asked for persons who had moved in the two years prior to the survey. Based on these questions, migrants are categorized into three groups – single move, seasonal and repeat. The criteria for classification is based on the frequency of moves and the reasons for moving. If persons had moved only once in the previous two years they are classified as 'single movers'. If they had moved two or more times and at least one of those moves was described as being for seasonal employment reasons, they are classified as 'seasonal' migrants. A person who had moved two or more times, with no move being for seasonal employment reasons, is treated as a 'repeat' migrant. Most of the single-move migrants can be thought of as permanent migrants while the seasonal and repeat movers can be thought of as temporary.

The three migrant types have very different migration patterns. From table 7 it can be seen that almost 19 per cent of migrants are classified as seasonal migrants and a further 17 per cent repeat migrants. This suggests that one third or more of migrants in Thailand are temporary migrants. For current residence, between 76 and 83 per cent of migrants living in Bangkok, the Central region and the South are single move migrants. In the North slightly over one half of migrants are single move migrants, with 20 per cent seasonal migrants and 25 per cent repeat migrants. Only 46 per cent of migrants in the North-east are single move, with 39 per cent seasonal and 15 per cent repeat movers.

Because the NMS was carried out during the wet season, most of the temporary migrants were interviewed at their usual place of residence. There are well established migration networks with Bangkok and the Central region displaying similar patterns and North-east and North exhibiting a different pattern. Some of the movement in this network involves single moves, primarily from the North and North-east to Bangkok and the Central region. Much of the movement, however,

Table 7. Percentage distribution of migration type by region of current residence and sex

Migration type	*Region of current residence*						
	Bangkok	*Central*	*North*	*North-east*	*South*	*Total*	*N*
All migrants							
Single move	82.4	76.6	54.7	45.9	79.9	64.1	2 920
Seasonal	1.9	6.3	20.4	39.3	5.0	18.8	857
Repeat	15.6	17.1	24.9	14.8	15.1	17.1	777
Total	100.0	100.0	100.0	100.0	100.0	100.0	
N	819	868	734	1 546	586	4 554	
Male migrants							
Single move	80.8	73.6	51.9	42.1	79.9	60.1	1 478
Seasonal	2.2	7.8	23.9	43.6	7.0	22.8	560
Repeat	17.0	18.6	24.2	14.3	13.1	17.0	418
Total	100.0	100.0	100.0	100.0	100.0	100.0	
N	389	425	421	909	311	2 456	
Female migrants							
Single move	83.9	79.5	58.4	51.3	79.9	68.7	1 442
Seasonal	1.7	5.0	15.6	33.1	2.7	14.1	296
Repeat	14.4	15.6	26.0	15.7	17.3	17.2	360
Total	100.0	100.0	100.0	100.0	100.0	100.0	
N	430	444	331	637	275	2 098	

Source: Chamratrithirong *et al.*, 1993.

Notes: Foreign origin migrants excluded from region of last residence.
Percentages may not total to 100 because of rounding.

is seasonal and repeat. Migrants flow from the North and North-east to Bangkok and the Central region in the dry season and return in the wet season.

Regional differences in migration are much larger than gender differences. The major gender difference is that women migrating to Bangkok and the Central region are more likely than men to be single move migrants and women migrating to the North-east and North are less likely than men to be seasonal migrants. For example, almost 44 per cent of male migrants to the North-east were seasonal, compared with only 33 per cent of females. The reverse situation is observed when out-migration is examined. Men migrating from Bangkok or the Central region are more likely than women to be seasonal migrants while women migrating from the North-east and North are more likely to be single movers.

(b) Characteristics of temporary vs. permanent migration

Differentials by migration type are shown in table 8. The mean age of seasonal migrants is greater than that of single movers. The mean age for migrant women is lower than that for men in each category: 24.8 vs. 26.2 for single migrants, 27.5 vs. 28.8 for seasonal, and 22.8 vs. 24.8 for repeat migrants. On average, repeat migrants are the youngest of the three migration types and this could be related to the high proportions single in this group of migrants compared with other categories of migrants. Without the ties associated with marriage and child-bearing, multiple moves are more likely. Never-married men and women are equally likely to be single migrants, but men were much more likely to have made seasonal or repeat moves. The same pattern is seen for divorced/separated men and women.

For both men and women, single migration increases steadily with education, though the pattern is more extreme for men. Short-term moves, however, and especially seasonal moves, are most common among those who completed primary school only; this is the compulsory level of schooling, and constitutes 58 per cent of the sample. Those at the secondary and college/university level have high rates of repeat moves; these may be associated with the completion of schooling or with returns home for the semester break for those currently in school. Patterns by education are similar for men and women, except that college/university women are slightly less likely to make a single move than secondary level women, while for men the difference is reversed and more pronounced.

Table 8. Migration type by gender, age and social characteristics

Sex and characteristic	*Non-migrant*	*Single move*	*Seasonal*	*Repeat*	*(N)*
		Percentage			
Age					
Male					
2-9	94	5	0	1	(2 496)
10-14	96	3	0	1	(1 781)
15-19	73	11	9	8	(1 324)
20-24	62	23	8	7	(1 227)
25-29	74	14	8	5	(1 379)
30-34	75	12	9	4	(1 214)
35-39	86	7	5	3	(1 121)
40-49	90	4	5	2	(1 707)
50-59	96	2	1	1	(1 303)
60+	97	3	0	0	(1 282)
Mean age	29.9	25.7	28.8	24.8	
Female					
2-9	94	4	0	2	(2 387)
10-14	93	6	0	1	(1 717)
15-19	75	15	4	6	(1 582)
20-24	72	16	5	7	(1 441)
25-29	84	11	2	3	(1 491)
30-34	89	7	3	1	(1 406)
35-39	91	5	3	1	(1 247)

(Continued)

Table 8 *(continued)*

Sex and characteristic	*Non-migrant*	*Single move*	*Seasonal*	*Repeat*	*(N)*
40-49	93	4	2	1	(1 803)
50-59	97	2	1	0	(1 515)
60+	97	2	0	1	(1 538)
Mean age	31.3	24.3	27.5	22.8	
Marital status					
Male					
Never married	73	13	7	7	(2 932)
Married, spouse pres.	85	8	5	2	(6 971)
Married, spouse abst.	76	12	3	8	(487)
Widow	94	5	1	0	(298)
Divorced/separated	81	9	7	3	(134)
Female					
Never married	82	12	3	4	(2 819)
Married, spouse pres.	90	6	3	2	(7 049)
Married, spouse abst.	75	15	3	7	(557)
Widow	96	2	1	1	(1 211)
Divorced/separated	85	10	2	3	(359)
Education					
Male					
None	94	3	1	2	(666)
Some primary	88	5	4	3	(502)
Primary grad	80	8	8	4	(6 531)
Secondary	82	12	2	4	(2 040)
College/university	82	15	0	3	(752)
Female					
None	95	3	0	1	(1 413)
Some primary	91	5	2	2	(686)
Primary grad	87	7	4	3	(7 453)
Secondary	84	12	1	3	(1 660)
College/university	87	11	0	2	(728)
Current occupation (past 7 days)					
Male					
Agriculture	81	6	9	4	(4 239)
Labour/production	75	15	5	5	(1 803)
Transport	84	11	1	3	(537)
Sales	86	10	2	2	(875)
Service	83	13	0	4	(410)
Prof./admin./clercl.	88	9	1	2	(504)
Looking for work	77	13	3	8	(378)
Unclassified	81	8	9	3	(447)
Student	84	10	0	5	(573)
Household	84	5	9	2	(109)
Not in labour force	95	4	1	1	(664)
Female					
Agriculture	88	4	6	2	(3 841)
Labour/production	83	11	2	4	(1 416)
Transport	91	9	0	0	(44)
Sales	90	8	1	1	(1 383)
Service	80	16	0	3	(361)
Prof./admin./clercl.	89	9	0	2	(584)
Looking for work	83	13	0	4	(322)
Unclassified	89	7	3	1	(351)
Student	89	8	0	3	(658)
Household	83	10	2	5	(1 964)
Not in labour force	97	2	0	1	(1 077)

Source: Chamratrithirong *et al.*, 1993.

Those working in labour/production, transport (for men) and service jobs (for women), and those looking for work had a high proportion who had moved once in the past two years. Seasonal moves were common among those in agriculture, labour/production and unclassified (mainly daily wage employees) for men, while for women seasonal moves were high only among agricultural and unclassified workers. The large proportion of agricultural workers who were seasonal migrants reflects their return home to work in the agricultural season.

(c) Directions of permanent and temporary migration streams

NMS data indicate that over 80 per cent of seasonal moves for men, and almost that proportion for women, take place between regions. At the other extreme, slightly fewer than 50 per cent of single moves occur between regions. The relative balance of between and within region moves for repeat migration is intermediate between the other two types (Chamratrithirong, *et al.*, 1993). Because many of the within-regional moves are urban-urban or rural-urban, it is not surprising that single moves dominate this type of migration flow. Almost 80 per cent of urban-urban migrants and 88 per cent of rural-urban migrants are categorized as single movers (table 9).

The two largest streams, rural-rural and urban-rural, have lower proportions of single move migrants. Almost one third of the urban-to-rural migrants are seasonal migrants and another one

Table 9. Percentage distribution of migration streams by migration type and sex

Migration stream	*Migration type*				
	Single move	*Seasonal*	*Repeat*	*Total*	*N*
All migrants					
Urban-urban	79.0	1.5	19.5	100.0	545
Urban-rural	49.6	30.0	20.4	100.0	1 530
Rural-urban	87.6	1.9	10.6	100.0	487
Rural-rural	64.8	20.3	14.9	100.0	1 729
Unknown-urban	82.3	0.0	17.6	100.0	71
Unknown-rural	64.2	15.6	20.1	100.0	185
Total	64.1	18.8	17.1	100.0	4 547
N	2 914	857	777	4 547	
Male migrants					
Urban-urban	78.2	1.7	20.1	100.0	272
Urban-rural	44.5	35.1	20.4	100.0	886
Rural-urban	87.2	1.9	10.9	100.0	213
Rural-rural	62.0	23.7	14.4	100.0	924
Unknown-urban	87.8	0.0	12.2	100.0	30
Unknown-rural	65.5	17.2	17.3	100.0	127
Total	60.1	22.8	17.0	100.0	2 453
N	1 475	560	417	2 453	
Female migrants					
Urban-urban	79.7	1.4	18.9	100.0	273
Urban-rural	56.6	22.9	20.5	100.0	644
Rural-urban	87.9	1.8	10.3	100.0	274
Rural-rural	68.1	16.5	15.4	100.0	805
Unknown-urban	78.1	0.0	21.9	100.0	40
Unknown-rural	61.6	12.1	26.3	100.0	58
Total	68.7	14.1	17.2	100.0	2 094
N	1 439	296	360	2 094	

Source: Chamratrithirong *et al.*, 1993.

Note: Percentages may not total to 100 because of rounding.

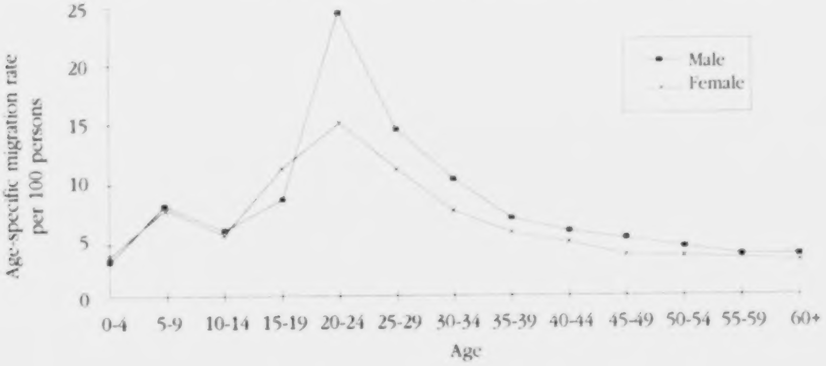
fifth are repeat migrants. For rural-rural migrants almost two thirds are single move and one fifth seasonal. The high proportions of repeat and seasonal migration for urban-rural migration and low proportions for the rural-urban counterstream is a result of the timing of the survey. If the survey had been undertaken in the dry season these results would have been reversed. In all major streams women are more likely than men to be single move migrants and less likely to be seasonal migrants.

4. Composition of migration streams

(a) Age

Age-specific migration rates are shown for the total population in figure 1. The bi-modal distribution that characterizes most age-specific migration distributions is clearly observed in Thailand. The ages where the probability of having been a migrant are highest are the young adult ages, with a peak for both men and women at ages 20-24. At ages 5-9 the per cent of migrants is also relatively high and this reflects the relatively high levels of movement of families in initial stages of family formation.

Figure 1. Migration rate by age and sex : 1985-1990



Source: Subject Report No.1, *Migration*, 1990 Population and Housing Census, NSO.

Migrants are younger than the population in general, rural-urban migrants are younger than other migrants, and migrants to Bangkok are younger than migrants in other streams. For example, while 40 per cent of all persons who migrated between 1985 and 1990 were aged between 15 and 24 in 1990, the corresponding figures for rural-urban migrants and migrants to Bangkok were 51 and 53 per cent, respectively. Only 36 per cent of urban-rural migrants were aged 15-24, with a further 27 per cent aged 25-34 (NSO, 1993).

The age/sex distribution of rural-urban migrants and all migrants is shown in table 10. Apart from the greater concentration of rural-urban migrants, compared with other migrants, at young adult ages, other differences occur mainly at the youngest ages. A far smaller proportion of rural-urban migrants are children compared with other migration flows. This is a reflection of the lower levels of family migration among rural-urban migration compared with other migration streams.

Table 10. Percentage age distribution of rural-urban migrants and all migrants by sex

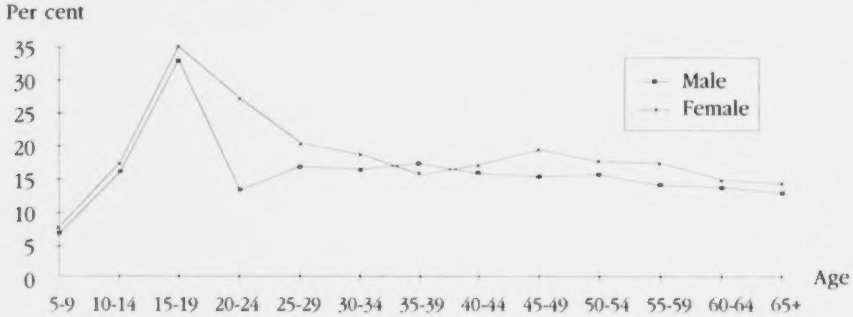
Age	*Rural-to-urban migrants*		*All migrants*	
	Male	*Female*	*Male*	*Female*
0-4	2.6	2.4	3.3	4.1
5-9	3.9	3.6	8.7	10.3
10-14	6.6	5.9	6.5	7.4
15-19	20.4	26.8	9.7	16.4
20-24	26.3	28.3	31.6	22.4
25-29	15.9	13.9	15.2	14.9
30-34	9.6	7.5	9.6	8.8
35-39	5.4	3.6	5.1	5.0
40-44	3.1	2.5	3.2	3.3
45-49	2.1	1.8	2.3	2.0
50-54	1.6	1.3	1.7	1.7
55-59	0.8	1.0	1.0	1.3
60-64	0.7	0.6	0.8	0.9
65-69	0.5	0.3	0.5	0.5
70+	0.4	0.6	0.7	1.0
Total	100	100	100	100
Number	358 700	398 400	2 307 700	1 871 600

Source: National Statistical Office, 1993.

Note: Percentages may not total to 100 because of rounding.

These patterns can also be observed in figure 2, where the per cent of all migrants who were rural-to-urban migrants is displayed by age and sex. At ages 15-19, one third of male migrants and slightly over one third of female migrants are rural-urban migrants. The percentage declines to under 15 per cent for males aged 20-24, probably a result of military conscription, and remains at around 15 per cent at all ages except for children aged 5-9. For females the pattern is slightly different, with a more gradual decline from the high levels recorded for ages 15-19.

Figure 2. Per cent of all migrants who were rural-urban migrants by age and sex: Whole Kingdom, 1990

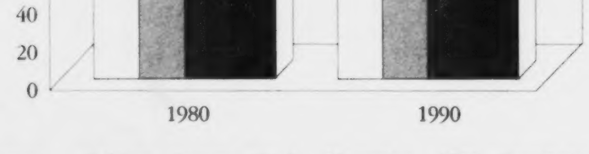


Source: Data are from the 1.2 per cent sample, 1990 Population and Housing Census (unpublished), NSO.

(b) Sex

A characteristic of Thai migration patterns is the high level of female migration. The overall sex ratio of migrants in the period 1985-1990 was 117 males for very 100 females, with males dominating most interregional migration streams. However, this was mainly because of the dominance of males in migration streams directed to rural areas. In some urban-directed streams females are in the majority, especially at younger ages. In figure 3 the sex ratios for different migration streams are shown for 1980 and 1990. In both periods women dominated migration streams that involved an urban destination and men dominated streams with a rural destination. Because of the large increases in the sex ratios of urban-to-rural migration from 1980 to 1990, and relatively little change in the sex ratios for other streams, migration is increasingly acting as a force in differentially changing the distribution of the population by sex. The high proportion of female migrants is most evident for migration to Bangkok. For every 100 females who migrated to Bangkok in the period 1985-1990 there were 87 male migrants. The sex ratio of migrants to Bangkok has declined from the 98 registered for the period 1965-1970.

Figure 3. Sex ratio by type of migrtion



Sources: Subject Report No.2, *Migration,* 1980 Population and Housing Census, NSO.

Subject Report No.1, *Migration,* 1990 Population and Housing Census, NSO.

Migration to the North-east and Central regions is characterized by a dominance of males (table 11). A large proportion of these flows involves migration undertaken with the aim of working in agriculture, a movement primarily undertaken by males. It is interesting to note that the two streams with the highest sex ratios are North-east to Central and the counterstream of Central to the North-east.

Table 11. Sex ratios of interregional migration streams of recent migrants aged 5 years and over

Region of previous residence	*Region of 1990 residence*					
	Total	*Bangkok*	*Central*	*North*	*North-east*	*South*
Total	117.1	87.2	167.3	96.1	143.7	113.1
Bangkok	112.6	96.2	106.8	95.9	126.8	172.1
Central	98.2	87.5	148.7	90.6	175.0	116.9
North	90.9	89.1	88.1	128.4	131.2	70.5
North-east	143.1	86.0	289.7	109.4	123.9	102.0
South	96.7	89.9	122.0	57.6	155.5	108.6
Abroad	128.2	164.2	225.0	133.6	69.4	66.3

Source: National Statistical Office, 1993.

(c) Education

There is a clear positive relationship between the probability of migration and level of education. Approximately 15 per cent of persons with a university education, 12 per cent with secondary education, 7 per cent with a primary school education and slightly over 4 per cent with no education migrated in the five years before the 1990 census. Education is also positively related with the distance of move, with interregional migration more likely the higher the level of education (NSO, 1993).

The selectivity of migration with respect to education varies by age and sex. At the youngest ages there is little difference between the proportions of migrants and non-migrants at each level of educational attainment. At ages 15-19 and 20-24, especially for females, a higher proportion of migrants compared with non-migrants have attained a university education. Approximately 11 per cent of males and 13.5 per cent of females gave education as their reason for migration in response to a question asked in the 1990 census (NSO, 1993). Therefore, it is likely that some of the higher propensity of the highly educated to move is due to migration made in order to attend higher levels of schooling.

However, the relationship between education and migration also holds for those persons well past the age of schooling and probably reflects the greater information about opportunities, the better access to employment and the higher level of economic incentives that the more educated have compared with persons with low levels of education. The differences between migrants and non-migrants are substantial. For example, for persons aged 25-29 over 42 per cent of male migrants and 40 per cent of female migrants had a secondary or higher level of education while the corresponding percentages for non-migrants were 31.5 and 24.8.

If educational attainment is examined for different migration streams, it can be seen that the educational selectivity of migration depends on the comparison group employed. In table 12 the age-standardized percentage distributions of educational attainment are shown for rural-urban migrants, urban-rural migrants, rural non-migrants and urban non-migrants. The distributions are age-standardized because of the large differences in age distribution of the populations (the age distribution of the total population of Thailand is chosen as the standard). The data indicate that urban-rural migrants have higher levels of educational attainment than do rural-urban migrants. The differences are most marked for males. The reason is probably related to the transfer of government staff to rural areas. Almost 17 per cent of males who moved from urban to rural areas in the period 1985-1990 said they undertook the move because of a job transfer. The corresponding percentage for females was only 6 (NSO, 1993). For males in government service a period of work 'up-country' is often a part of a government career. These moves are temporary and do not involve long-term commitment to rural areas. Because of the much larger flows of rural-urban migrants compared with urban-rural migrants, a net loss of educated migrants is experienced by rural areas.

Compared with the rural non-migrant population, rural-urban migrants are more highly educated. Among males, nearly 36 per cent of rural-to-urban migrants have a secondary or higher level of education, while the respective

Table 12. Percentage distribution of age-standardized educational attainment for rural-urban migrants, urban-rural migrants, rural non-migrants and urban non-migrants, by sex, 1990

Education/Sex	*Rural-urban migrants*	*Urban-rural migrants*	*Rural non-migrants*	*Urban non-migrants*
Male				
No education	3.4	4.8	11.1	7.3
Primary	61.0	50.2	76.4	48.0
Secondary	25.9	32.5	10.3	29.9
Tertiary	9.7	12.4	2.2	14.8
Total	100	100	100	100
Female				
No education	5.1	8.9	15.8	10.7
Primary	64.9	56.1	75.5	51.8
Secondary	19.8	22.1	6.8	23.1
Tertiary	10.2	13.0	1.9	14.4
Total	100	100	100	100

Source: National Statistical Office, 1993.

Note: Percentages may not total to 100 because of rounding.

figure for rural non-migrants is 12.5 per cent. The differential is even greater for females, with 30 per cent of rural-urban migrants and 8.7 per cent of rural non-migrants having an educational level of secondary school or higher. Rural-urban migrants have lower levels of education than urban non-migrants, although the differences are not great. Thus migration is acting to transfer the most highly educated of the rural population to urban areas, whose populations have education levels which are similar to those of the migrants.

(d) Occupation

Because of the importance of labour force dynamics in structuring migration flows, a detailed discussion of migration differentials by occupation and work status is left to section E. However, some preliminary comments are provided below. It is difficult to judge patterns of occupation selectivity from census data as occupation measured in the census refers to the current occupation, i.e. the occupation after migration. However, labour force participation rates of migrants are greater than those of non-migrants, suggesting the importance of economic reasons in the decision to migrate. Data from Round 3 of the 1990 National Labour Force Survey (NSO, 1990) indicate that male migrants had a labour force participation rate of 92 per cent compared with 83.3 per cent for non-migrants. The respective rates for female migrants and non-migrants were 75.5 and 73.8 per cent. For both sexes the participation rates of migrants were highest in urban areas, particularly in Bangkok, although in other regions participation rates for female migrants were generally higher in rural areas than urban areas.

Although the educational levels of rural-urban migrants are not very different from those of urban non-migrants, the occupational distributions of these groups are very different. In table 13 the 1990 percentage occupational distributions for each sex are shown for urban non-migrants and for rural-urban migrants. While almost half of the male and two-thirds of the female non-migrants are in professional/administrative or clerical/sales occupations, only 28 per cent of male and 30 per cent of female rural-urban migrants are in these occupations. Almost 60 per cent of male migrants are in production and transportation occupations while 39 per cent of female migrants engage in production and transportation occupations. A further 29 per cent of female rural-urban migrants are in service occupations.

Table 13. Percentage distribution of rural-urban migrants and urban non-migrants by sex and occupation, 1990

Occupation	*Rural-to-urban migrants*		*Urban non-migrants*	
	Male	*Female*	*Male*	*Female*
Professional & administrative	12.2	6.4	21.1	22.2
Clerical & sales	15.4	23.2	28.5	42.0
Agriculture	3.6	2.4	5.8	5.2
Production & transport	59.2	39.0	36.9	19.2
Services	9.3	28.5	6.9	10.7
Not classified	0.2	0.3	0.1	0.0
Total	100	100	100	100

Source: National Statistical Office, 1993.

Note: Percentages may not total to 100 because of rounding.

5. Reasons for migration

The importance of employment in the migration decisions of urban-bound females is clearly seen from the reasons given for migration by recent migrants (table 14). Almost 50 per cent of female rural-urban migrants reported that the primary reason they moved was to look for work. This was an increase of 10 percentage points when compared to the period 1975-1980. For female migration streams to rural areas 'looking for work' was the reason given by 10-20 per cent of migrants. For these migrants 'accompany person in household' – presumably their husbands – was by far the main reason given for migration. Education was also an important reason given for moves to urban areas.

The reasons given for migration by male rural-to-urban migrants are similar to those of female rural-to-urban migrants, with economic reasons, particularly looking for work, dominating. It is also notable, however, that family reasons are also important for males in rural-directed movements. For many migrants these moves might involve return migration. Marriage-associated migration is also important for male rural-to-rural movers and is influenced by the Thai cultural norm that men move into their wife's parents' household upon marriage.

6. Components of urban growth

Overall, a significant component of the growth of urban centres in Thailand can be attributed to the transfer of population from rural to urban areas. Urban fertility, particularly in Chiang Mai and Bangkok, began to fall in the 1960s, and the fertility transition in urban areas preceded the transition in rural areas by a number of years (Knodel *et al.*, 1987). Urban and rural fertility rates are now essentially equivalent. Net of the effects of urban reclassification and expansion, this indicates that migration has been the major factor contributing to urbanization in Thailand and also suggests that it is an important component of urban growth.

There are a number of methods available to undertake a decomposition of the sources of urban growth. The most accurate method involves using data on births, deaths and migration, classified by rural and urban residence, to obtain a direct measure of the extent that migration contributed to growth. Unfortunately, the data needed to undertake such an exercise are not available for Thailand because of inadequate information on numbers of births and deaths. Published census data do provide estimates of the change in population of designated areas due to net migration. These data are available for the five-year period before the census. If the assumption is made that migrants from an unknown origin were distributed among origin categories in the same proportions as found for migrants with a known origin, there were 883,687 migrants from rural to urban areas and 608,616 migrants from urban areas, resulting in a net transfer of population of 225,071 persons aged 5 and above between 1985 and 1990. For Bangkok, which also grew through the transfer of the population from other urban places, the net gain of migrants was 365,900 in the same period (NSO, 1993).

Table 14. Percentage of migrants by reason for move, by migration stream and sex, 1975-1980 and 1985-1990

Sex and reason for move	*1975-1980*				*1985-1990*			
	Rural-rural	*Rural-urban*	*Urban-rural*	*Urban-urban*	*Rural-rural*	*Rural-urban*	*Urban-rural*	*Urban-urban*
Males								
Economic reasons								
Looking for work	27.5	49.7	21.0	24.6	17.2	52.3	13.5	29.2
Job Transfer	6.4	7.2	21.7	13.9	6.1	7.3	16.6	17.1
Other	2.7	3.8	2.0	3.1	2.6	3.9	2.9	4.7
Education reasons	3.4	10.7	2.9	9.7	1.2	10.8	2.0	12.2
Family reasons								
Marriage	18.0	2.6	7.3	1.9	15.1	1.1	5.6	1.6
Accompany person in household	30.3	14.8	30.5	29.0	22.3	13.7	21.1	19.0
Other	9.3	5.0	11.9	12.5	32.6	8.8	36.3	13.0
Unknown	2.5	6.3	2.8	5.3	2.9	2.2	2.0	3.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Females								
Economic reasons								
Looking for work	16.5	39.4	11.4	16.3	16.7	49.9	10.9	25.6
Job Transfer	1.9	1.7	6.7	3.1	2.5	2.4	6.0	6.1
Other	1.8	2.8	1.1	3.1	2.5	4.1	2.3	3.7
Education reasons	1.7	13.5	3.4	12.4	1.5	10.5	3.3	17.5
Family reasons								
Marriage	12.2	4.8	6.9	5.2	12.7	1.9	7.0	2.0
Accompany person in household	59.3	33.1	59.6	49.3	53.0	26.1	53.1	35.9
Other	4.3	2.0	9.2	6.1	7.2	2.4	14.3	6.6
Unknown	2.3	2.8	1.6	4.4	3.9	2.8	3.2	2.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Sources: Data for 1975-1980 are from Goldstein and Goldstein (1986). Data for 1985-1990 are from NSO (1993).

Note: To retain comparability between the two time periods, a number of categories for the 1985-1990 period were combined.

To examine the extent that migration contributed to urban growth during this period it is necessary to obtain an estimate of natural increase. The children aged 0-4 in 1990 who had not migrated since birth can be assumed to contribute to the increase in the population due to natural increase in the period 1985-1990. For urban areas there were 664,700 children aged 0-4, of whom 43,700 had migrated from somewhere else (it is not possible to determine if the origin was urban or rural). The corresponding figures for Bangkok were 180,900 and 7,500 (NSO, 1993). Therefore, for all urban areas the total gains in population in the period 1985-1990 can be calculated at 889,771 with 268,771 (30.2 per cent) due to migration. For Bangkok, net migration is estimated to contribute 68.2 per cent of the gain in population. The large contribution of migration to the growth of Bangkok might be an overestimate to the extent that some temporary migrants were included as migrants. Therefore, comparison with other estimates is desirable.

An indirect method of calculating the components of urban growth is to estimate the extent to which natural increase contributed to urban growth by making assumptions about the levels of natural increase that occurred over the decade of the 1980s. Specifically, the rates of natural increase recorded in the Surveys of Population Change in 1974-1976, 1985-1986, 1989 and 1991 are used to calculate annual rates of natural increase by fitting a linear equation to the four points after transforming the series to take into account the more rapid decline in natural increase that occurred in the late 1970s and early 1980s. The estimates are made separately for all municipal areas and for Bangkok. The rates from the four surveys are: 3.35, 1.48, 1.31 and 1.32 for municipal areas and 2.73, 1.51, 1.14 and 1.13 for Bangkok (NSO, 1993).

After accounting for the amount of change in urban growth that occurred through natural increase, the residual is treated as the component due to the combined effects of net migration, reclassification of rural areas into urban areas, and the expansion in the boundaries of urban areas. In the period 1980 to 1990 the number of new municipal areas added was 14. In 1990 the population of these areas was 370,653 persons. Of the 14 newly designated municipal areas, Pak Chong in Changwat Nakhorn Ratchasima had the most inhabitants, with a population of 42,856 in 1990. This was followed by Phraphutabat in Saraburi, with a 1990 population of 39,063. The area contained within municipal areas increased from 3,014.5 square kilometers in 1980 by 512.7 square kilometers to 3,527.2 square kilometers in 1990. Of this increase, slightly less than half (230.9 square kilometers) occurred through the addition of the 14 new municipalities.

Hence the remaining additional 281.8 square kilometers of the area of urban areas resulted from the expansion of existing urban boundaries. Of the 119 municipal areas that had been gazetted by 1980, 97 did not change in size between 1980 and 1990. The urban population of these 97 municipalities increased from 6,939,995 in 1980 to 8,615,280 in 1990. For the remaining 22 that expanded their boundaries (no boundaries contracted), the population of 692,921 in 1980 increased to 1,229,162 in 1990. The expansion of the boundaries of three municipalities, Nonthaburi, Nakhorn Ratchasima and Chiang Mai, accounted for around two-thirds of the increase in the urban population that occurred in the 22 municipalities undergoing urban expansion.

Data are not available to partition the amount of population contained in the areas added to the 22 municipalities that expanded their boundaries between 1980 and 1990. However, crude estimates can be made through making assumptions based on population densities. In 1980 the population density of the 22 municipalities was 4,366 persons per square kilometer. The density declined to 2,777 persons per square kilometer in 1990. This can be compared with an increase in density of 2,431 to 3,019 persons per square kilometer for the 97 urban areas whose boundaries did not expand between 1980 and 1990. We make the assumption that the density of population in the original 158.7 square kilometers of the 22 municipalities in 1980 increased at the same rate as the increase in population density of the 97 municipalities that did not expand their boundaries. Based on this assumption we can partition the amount of population growth due to expansion of urban boundaries and other sources.

The final results of the decomposition are shown in table 15. Also shown are previous published estimates undertaken for the periods 1960-1970 and 1970-1980. In the results of the decomposition reported in United Nations (1982) for the earlier periods, the effects of reclassification and expansion are combined. Natural increase was the main component of urban growth in the

Table 15. Estimated urban population growth by components of growth, 1960-1970, 1970-1980 and 1980-1990

Component of growth	*1960-1970*		*1970-1980*		*1980-1990*	
	Number (000s)	*Percentage*	*Number (000s)*	*Percentage*	*Number (000s)*	*Percentage*
All urban areas						
Natural increase	916	49.9	1 142	40.8	1 198	46.4
Reclassification*	120	6.5	823	29.4	368	14.2
Expansion*	–	–	–	–	369	14.3
Net Migration	800	43.6	835	29.8	647	25.1
Bangkok						
Natural Increase	NA	NA	NA	NA	738	62.2
Reclassification	NA	NA	NA	NA	0	0.0
Net Migration	NA	NA	NA	NA	448	37.8

Source: 1960-1970 and 1970-1980 (United Nations, 1982).

- In the periods 1960-1970 and 1970-1980 a single estimate for the combined effects of reclassification and expansion is provided.

NA – not available.

period 1980-1990 as it had been in the previous two decades. The slightly higher percentage of urban growth attributed to natural increase in 1980-1990 compared to 1970-1980, may in part be due to the increasing concentration of urban populations in the high fertility young adult ages due to previous high levels of migration. It should also be noted that the low levels of growth due to net migration are underestimated, as a portion of the urban growth that occurred in areas reclassified and where boundaries expanded was a result of migration. If we make the assumption that levels of natural increase in those areas were the same as overall levels of natural increase, the proportion of the growth resulting from net migration would increase from 25.1 per cent to almost 37 per cent (25.1 + (.421 * (14.3 + 14.2))). It is notable, however, that both the indirect method and the method based on actual counts of net migrants provide similar estimates of the contribution of net migration to the growth of urban areas.

Whatever the final estimate, however, it is clear that net migration was a more important source of growth for Bangkok than it was for other urban areas. Bangkok did not grow at all through expansion of its boundaries during the period 1980 to 1990. Therefore the residual of 37.8 per cent after natural increase of 62.2 per cent can be attributed to net migration. Given the high densities of Bangkok, and a trend for movement from Bangkok to peripheral areas, this illustrates the importance of migration to the growth of Bangkok. It must also be stressed that the age selectivity of migration acts to concentrate rural-to-urban migrants at young adult ages. These are the ages at which many are commencing to have children. Hence a significant, but undetermined, amount of the effect of natural increase is from the fertility of migrants into urban places (Guest, 1994). The estimate of the contribution of net migration based on the enumerated number of net migrants is very different than that obtained through the indirect method. It was argued above, that the inclusion of some temporary migrants in the net migrant count would result in an overestimate of the contribution of net migration.

There is additional survey evidence that temporary migration contributes to large seasonal variation in the size of urban centres. For example, data from the NMS suggest that there is approximately a 10 per cent difference in the dry season and wet season population of Bangkok due to inflows and outflows of migrants. This results in an estimated wet season population of Bangkok of approximately 8 million, with the dry season population being close to 9 million (Chamratrithirong *et al.*, 1993).

7. Projections of migration and rural-urban migration

The most recent population projections available come from those prepared by the National Economic and Social Development Board for use in planning for the Seventh Plan (NESDB, 1991). The projections, which extend to the year 2015, incorporate fertility and mortality assumptions which are relatively unproblematic: in the medium fertility projection fertility levels are expected to decline to a total fertility rate of 1.85 by the period 2010-2015, while life expectancy is expected to increase to 70.1 years for males and 74.3 years for females. Contributions to population change were built into the projections based on analysis of migration patterns from the 1980 census. As the analysis included the effects of age on migration probabilities, the migration assumptions in the population projections incorporate changes due to changes in age structure. An additional set of projections was prepared under the assumption that levels of migration would be 15 per cent higher than those used for the base projections.

Although the projections are presented with considerable geographic detail, they were not prepared separately for urban (municipal) and rural (non-municipal) areas. However, projections were made for the changwat surrounding the Bangkok Metropolitan Area, changwat on the Eastern Seaboard, and those in the western part of the Central region. Combined, these projections provide important information on anticipated trends in population change. The regional distribution of the population for the base projection and under the assumption of 15 per cent higher migration are shown for 5 year periods by sex in table 16.

The projections indicate that population redistribution over the next two decades will primarily involve a greater concentration of the population in Bangkok, the five changwat surrounding Bangkok (Vicinity Provinces) and the changwat that comprise the Eastern Seaboard. Combined, these three areas contained 22 per cent of the male population and 22.5 per cent of the female population in 1990 and were projected to contain 24.2 and 24.8 per cent of the male and female populations, respectively, in the year 2010. Gains for the female population were projected to accrue mainly to Bangkok and the Vicinity changwat, and gains for males were projected to be proportionally greater in the East – the site of proposed concentrations of heavy industry which are more likely to depend on a male labour force.

Table 16. Estimated and projected percentage distribution of population by region and sex, 1990 to 2010

Region		*Year*									
		1990		*1995*		*2000*		*2005*		*2010*	
		Male	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*
Bangkok	(1)	10.8	11.2	10.9	11.3	10.9	11.4	10.9	11.4	11,0	11.4
	(2)	10.8	11.3	11.0	11.5	11.1	11.6	11.1	11.7	11.2	11.7
Central Region											
Vicinity	(1)	4.9	5.1	5.2	5.5	5.5	5.9	5.9	6.3	6.2	6.7
	(2)	5.0	5.2	5.3	5.7	5.7	6.1	6.1	6.6	6.5	7.0
East	(1)	6.3	6.2	6.5	6.3	6.6	6.4	6.8	6.6	7.0	6.7
	(2)	6.3	6.2	6.5	6.3	6.7	6.5	6.9	6.7	7.1	6.9
West	(1)	5.6	5.8	5.7	5.7	5.6	5.6	5.6	5.6	5.5	5.5
	(2)	5.8	5.8	5.7	5.7	5.6	5.6	5.5	5.5	5.5	5.4
Other	(1)	4.9	5.0	4.8	4.9	4.7	4.8	4.6	4.7	4.6	4.6
	(2)	4.8	4.9	4.7	4.8	4.7	4.7	4.6	4.7	4.5	4.6
North	(1)	19.4	19.1	19.1	18.7	18.7	18.3	18.3	17.9	17.9	17.5
	(2)	19.4	19.1	19.0	18.7	18.7	18.3	18.2	17.8	17.9	17.5
North-east	(1)	34.6	34.3	34.2	33.9	33.9	33.6	33.7	33.3	33.3	33.0
	(2)	34.4	34.1	34.0	33.6	33.6	33.2	33.2	32.8	32.7	32.3
South	(1)	13.4	13.4	13.7	13.7	14.0	14.0	14.3	14.3	14.6	14.6
	(2)	13.4	13.4	13.7	13.7	14.0	14.0	14.3	14.3	14.6	14.6

Source: NESDB, 1991.

Notes: (1) Population projection based on medium variant. (2) Population projection based on medium variant assumption with 15 percent increase in levels of migration.

The Central region is divided into four sub-regions. Vicinity consists of those changwat surrounding Bangkok (Nonthaburi, Pathum Thani, Samut Prakan, Samut Sakhon and Nakhon Pathom). The East is comprised of: Chanthaburi, Chonburi, Rayong, Chachaengsao, Trat, Prachinburi and Nakhon Nayok. The West includes the changwat of Kanchanaburi, Phetchaburi, Prachuapkirikhan, Ratchaburi, Suphanburi and Samut Songkhram. The remaining six Central region changwat comprise the other category.

That much of this growth is projected to be a result of migration can be clearly seen by comparing the base projections with the projection of an increase in migration of 15 per cent. Under the latter condition, the concentration of population in these three areas becomes even more pronounced, with 24.8 and 25.6 per cent of the male and female population, respectively, residing in these three areas. Therefore migration, most of it rural-to-urban, is projected to increase the concentration of the population in and around Bangkok and the effects are projected to be more pronounced for females than for males.

Both the North and North-east are the regions projected to lose population share. However, while the losses in the North are expected to be primarily a result of changes in natural increase (primarily low fertility), the decrease in the share of the population living in the North-east is strongly influenced by out-migration, and more so for females than males. This can be seen from comparing the base projections and the projections involving a 15 per cent increase in migration. The South is expected to increase its share of the population, with the increase being primarily a result of higher levels of natural increase in the South relative to other regions.

Other population projections agree that the growth of the urban population will be focused on Bangkok Vicinity into the next century (see summary of projections in Ashakul, 1989). In part this reflects the young age structure of the population in this area, an age structure which has been heavily influenced by high-levels of in-migration over the last two decades. Primarily, however, it is the continued economic dominance of Bangkok combined with the high cost of land in Bangkok, that helps maintain the attractiveness of Bangkok and its vicinity as a migrant destination.

The spillover of Bangkok into neighbouring areas has extended into changwat that do not share a boundary with Bangkok, such as Saraburi, Singburi, Chainat, Ang Thong, Lop Buri, Saraburi, Ayuddhya, Chon Buri and Rayong or, while sharing a boundary, are distant from the central area of BMA (Chachoengsao). These changwat are becoming increasingly integrated into a Bangkok-dominated economic zone, which has been referred to as the Extended Bangkok Metropolitan Region (EBMR). The EBMR and the South are the only two areas projected to increase their share of the national population by the year 2010. The increase in the EBMR is projected to be mainly a result of net in-migration while the increase in the South is expected to result from relatively high fertility in that region (NESDB, 1992).

8. Implications of rural-urban migration patterns

Rural-to-urban migration makes up less than 50 per cent of internal migration in Thailand. However, the share of rural-urban moves has increased over the last three decades. This share is even greater if temporary moves, most of which are rural-urban, are included. One of the reasons for the low, but increasing, share of rural-urban moves is the large share of the Thai population living in rural areas. Depending on the definition employed, 70 to 80 per cent of the population live in rural areas. Therefore, even with a relatively low proportion of rural-urban migration the impact on the population of urban areas is large. Because of low levels of urban fertility, much of urban growth, and urbanization, are a result of net migration gains.

Bangkok is central to migration patterns in Thailand. Over half of the urban population live in Bangkok. Many others live in municipal areas or large sanitary districts surrounding the capital. Bangkok is also the economic, social, cultural, political and information centre of the country. As such it serves as a magnet for migrants. Although it makes up only about 10 per cent of the national population, Bangkok was involved in 30 per cent of the migration recorded by the census for the period 1985-1990. The 30 per cent was comprised of 21 per cent for moves where Bangkok was the destination and 9 per cent of moves where Bangkok was the origin. Even though Bangkok has lower levels of fertility than other regions of Thailand, the net population gains through migration contribute to high rates of population growth. Overall, we estimate that at least 40 per cent of the population growth that occurred in Bangkok during the period 1980 to 1990 was a result of direct gains through migration. If the fertility of the migrants that occurred after arriving in Bangkok were taken into account, the contribution of migrants would far exceed 50 per cent of population growth. The population growth rates recorded for Bangkok would be even higher if Bangkok were defined to include the surrounding areas that act as dormitory suburbs for Bangkok.

The importance given to economic reasons for rural-to-urban migration reflects the important role that permanent internal migration in Thailand plays in economic development by providing a mechanism where rural/urban differences in labour opportunities, especially for skilled workers, can be overcome. Other forms of migration also play a valuable economic role. Chief among these migration streams are the seasonal and circular migration that is often carried out in conjunction with variations in agricultural labour demands. It is during the agricultural seasons when demand for labour is low that migrants flock to Bangkok to search for work. The flows are particularly heavy during the dry season months of March to June. These migrants, who are mainly from the North-east and to a somewhat lesser extent the North, provide a cheap additional labour force for the factories and service industries of Bangkok and surrounding changwat, while at the same time providing the migrants and their families in the villages enough money to survive.

The patterns of economic development that concentrate economic opportunities in urban areas are drawing large numbers of young persons out of rural areas. A majority of these migrants are females. While the census records a net rural-urban transfer of males, the numbers are relatively small and at some young adult ages actually result in a loss of numbers from urban areas. These migration patterns contribute to urban populations, compared with rural populations, being concentrated at young adult ages. Migration also results in significant sex imbalances in the population of urban and rural areas.

Migrants from rural areas have higher levels of education than their non-migrant rural counterparts. They also tend to have higher levels of occupational skills. This results in a loss of human resources from rural areas. Migrants with lower levels of education are more likely to be temporary migrants, particularly seasonal. However, the occupations that they engage in during the time in urban areas are unlikely to provide them with skills that can be used in their rural origins.

D. GENDER DIMENSIONS OF RURAL-URBAN MIGRATION

1. Gender selectivity in rural-urban migration

Reviews of internal migration patterns in Thailand have not considered gender issues in depth (United Nations, 1982; Goldstein and Goldstein 1986). This is despite females dominating in several migration streams, particularly those directed towards the largest urban centres. Increases in female migration in Thailand, and to Bangkok in particular, have been associated with macro-economic changes which have focused on developing the export and service sectors (Phongpaichit, 1991). Women are preferred as workers because they can be paid lower wages than men, are assumed to be more docile and are considered better suited to perform repetitive tasks. Japanese factory managers in Thailand also report that they prefer female workers over male workers because female workers have lower levels of job turnover (NESDB, 1992).

Female migrant labour is especially attractive because of the ability of employers to exert greater control over the activities of workers when they are removed from their families and communities. The movement of young single females is reinforced by cultural expectations in Thai society that daughters provide support for their parents. Migrant remittances are a significant contribution to the household economies of many rural households, especially in the North-east, and daughters are more likely than sons to remit money (Porpora *et al.*, 1989).

In the following sections the relationship between gender and migration is examined in detail. As the numbers and percentages of women involved in rural-urban migration have been presented for selected characteristics in section C, this section concentrates on gender differences in migration on these characteristics. This is undertaken primarily through the presentation and discussion of sex ratios.

(a) Gender and age

Differences in the age-sex selectivity of migration create substantial demographic imbalances in the rural and urban populations. In table 17 the age-specific sex ratios (number of males per 100 females) are shown for a number of populations. The urban population is female dominated (a sex ratio of 94) while there is a relatively even distribution of the sexes in the rural population. However, in the rural population females are in the majority only after age 25, while in the urban population females dominate after age 15, with the lowest sex ratio being 85 males for every 100 females in the age group 20-24. In Bangkok, where the sex ratio at young ages favors women even more than for urban places in general, the 1990 census enumerated 791,500 females ages 15-24 but only 673,600 males (NSO, 1992). The effect of this form of sex imbalance on marriage patterns in both rural and urban areas has yet to be determined, although it is not difficult to envisage significant impacts.

Table 17. Age-specific sex ratios for urban and rural populations and selected migration streams: Thailand, 1990

Age	*Urban*	*Rural*	*Migrants*		
			All	*Rural-urban*	*Urban-rural*
0-4	105	106	98	99	82
5-9	108	102	105	97	88
10-14	106	104	109	100	109
15-19	89	102	73	69	83
20-24	85	112	174	84	218
25-29	91	95	126	103	104
30-34	93	96	135	116	127
35-39	93	96	126	137	106
40-44	96	97	122	113	142
45-49	93	95	142	110	142
50-54	99	93	120	106	91
55-59	95	91	100	79	116
60-64	86	95	112	104	75
65-69	85	90	117	131	71
70 and over	69	77	89	65	91
Total	94	99	123	90	125

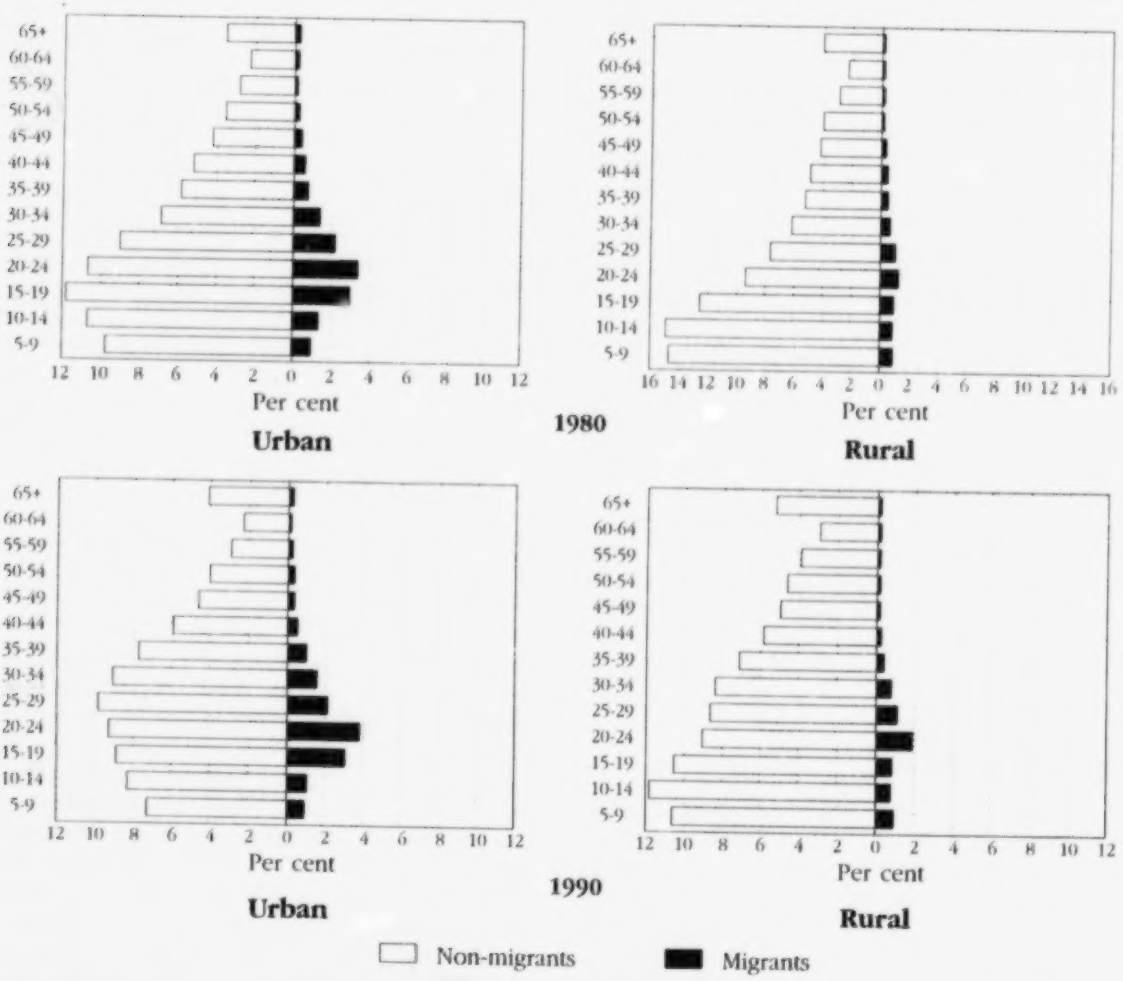
Source: NSO, 1993.

The age-specific sex ratios of the general population are magnified in migration streams. Overall migration is dominated by males, with 123 males migrating in the period 1985-1990 for every 100 females. However, females dominate rural-urban migration streams while males dominate urban-to-rural streams. Females usually undertake migration related to life-course events such as marriage, completion of education and entry into the labour force, at earlier ages than do males and this can partly explain the dominance of female migrants at young ages. In Thailand there are also labour demand factors operating that act to draw young women from rural areas. Government policies that have promoted export-led development have transformed the labour force structure of Thailand and provided new employment opportunities for young women (Manusphaibool, 1991).

As noted earlier, migrants are overwhelmingly concentrated at the young adult ages (figure 4). It is at those ages that females outnumber males in rural-urban flows (figures 5 and 6). For example, the sex ratio at ages 15-19 is 73 for all migrants, 83 for urban-rural migrants and 69 for rural-urban migrants. At ages 20-24 the disparities are at their greatest as migration associated with military conscription for males results in very high urban-rural sex ratios. At almost all ages after 25, males dominate in rural-to-urban migration, although the sex ratio generally remains below that of other migration streams. It is interesting to note the dominance of females in rural-urban flows for the population aged 70 and over. Although the numbers involved are small, many probably migrated upon being widowed and move to live with children who had previously migrated to urban areas. Because of the potential dependency of this group, they may require special attention by planners.

Migration results in a larger net gain of females to urban areas than it does for males as males are more likely than females to move out of urban areas. For the period 1985-1990 there was a net gain of female migrants to urban areas of 161,300 (NSO, 1993). The net exchanges of population at young adult ages are significant in terms of the proportion of the population that is involved. To take the extreme example of females aged 15-19 in 1990, the net gain of 80,300 migrants constituted 13 per cent of the urban population of females aged 15-19, although it was only a little over 3 per cent of the corresponding rural population.

Figure 4. Percentage distribution of migrants and non-migrants aged 5 years and over by age and area, 1980 and 1990



Sources: Subject Report No.2, *Migration*, 1980 Population and Housing Census, and Subject Report No. 1, *Migration*, 1990 Population and Housing Census, NSO (1993).

(b) Gender and marital status

At ages 15-24 there are 125 never-married males for every 100 never-married females (table 18). This reflects the later age of marriage of males compared with females. Migration streams for the never-married vary in their sex composition. Rural-rural migration for never-married persons aged 15-24 involves three times as many males as it does females. Other migration streams at this age for the never-married (urban-to-rural and urban-urban) are also comprised largely of males. However, for rural-to-urban migration of the never-married there are considerably more females than males, with the sex ratio for migration to provincial urban centres being 79 and for migration to Bangkok, 76. The rural-urban migrant sex ratios for the married for this age group do not vary significantly from the non-migrant reference groups. Rural-rural migration of the married, on the other hand, has a much lower proportion of women than is found in the rural non-migrant married population.

At older ages rural-urban migration is no longer selective of never-married women. For rural migration to both provincial urban centres and to Bangkok, the sex ratios for the never-married exceed those found in the respective non-migrant populations. Never-married males also outnumber, to a small extent, never-married females in rural-to-urban migration at ages over 25. Compared with rural-rural migration, however, rural-to-urban migration has much higher proportions of females. Therefore, at all ages the overall aggregate impact of migration is to redistribute never-married females from rural to urban areas and at the same time distribute males, both married and unmarried, within rural areas.

Although the numbers of migrants who are widowed, divorced or separated is only a small proportion of all migrants, the streams are dominated by females, especially at older ages. For the divorced and separated, the ratios for rural-urban migration are generally higher than those observed in the respective non-migrant populations. This suggests that men who divorce or separate are more likely to migrate than women who divorce or separate. This is probably a result of many men moving into the residence of their wives' parents upon marriage, hence a divorce is more likely to result in them moving.

Table 18. Sex ratios of selected migration streams by marital status and age: Thailand, 1990

Age/Marital status	*Rural-rural*	*Rural-provincial urban*	*Rural-Bangkok*	*Other migrants*	*Non-migrant rural*	*Non-migrant provincial urban*	*Non-migrant Bangkok*	*Total*
15-24								
Never married	318	79	76	170	126	104	95	125
Married	84	48	48	64	46	51	50	51
Widowed	31	86	***	36	15	56	43	20
Div & Sep	88	27	13	23	21	14	36	23
Total	165	72	71	135	98	94	88	
25-39								
Never married	167	101	115	131	122	95	104	116
Married	153	109	125	107	92	87	88	94
Widowed	16	28	38	26	22	27	28	23
Div & Sep	106	63	87	56	39	40	51	44
Total	151	104	118	110	92	86	91	
40+								
Never married	175	127	92	67	62	44	49	58
Married	155	144	148	151	117	123	122	118
Widowed	23	22	14	20	25	22	21	25
Div & Sep	66	56	66	54	41	47	43	43
Total	117	106	101	110	90	90	89	

Source: Unpublished tabulations from the 1990 census microdata sample, National Statistical Office.

Notes: Unknown migration status and marital status excluded.

*** Fewer than 100 cases.

(c) Gender and education

In section C we saw that migration is selective of women with relatively high levels of education. In table 19 the sex ratios of the cross-classification of migration stream and educational attainment are shown for three age groups. With the exception of the relatively small proportion of the population who have a tertiary level of education, the sex ratio increases with education. This relationship occurs for all migration streams at all ages. In general, however, the increases are greater for rural-urban than they are for rural-rural migration streams and are greater at older ages than at younger ages. Thus migration streams become progressively more male-dominated in composition as education increases. That this is not simply a reflection of sex composition of educational categories can be seen from the much smaller differentials in the sex ratios of educational categories for non-migrants.

There are several possible explanations for these patterns. Occupations for which female migrants have access may require lower levels of education than those for which male migrants have access. Or it may be that females with lower levels of education have more restricted opportunities in rural areas compared with males and therefore are under more pressure to migrate. The effects of gender differences in migration patterns among educational groups are potentially important. While education results in higher levels of migration for the more educated, opportunities for those with low education occur primarily in rural areas for men and in urban areas for women.

Table 19. Sex ratios of selected migration streams by education and age: Thailand, 1990

Age/Education	*Rural-rural*	*Rural-provincial urban*	*Rural-Bangkok*	*Other migrants*	*Non-migrant rural*	*Non-migrant provincial urban*	*Non-migrant Bangkok*	*Total*
15-24								
None	133	27	36	77	68	102	89	72
Primary	164	81	66	177	94	86	72	98
Secondary	219	93	92	142	124	107	103	121
Tertiary	118	36	83	71	74	72	79	75
Other	826	###	203	1941	694	182	880	740
Unknown	33	244	96	85	103	106	30	78
Total	171	81	73	141	99	96	88	
25-39								
None	71	44	44	59	59	60	43	58
Primary	144	96	104	90	87	70	73	88
Secondary	255	128	175	157	192	133	119	159
Tertiary	130	113	111	115	103	80	99	100
Other	1900	33	###	471	1024	1393	533	770
Unknown	348	239	393	148	145	102	121	139
Total	154	105	118	112	92	87	92	
40+								
None	47	40	18	46	47	45	46	47
Primary	140	92	109	99	101	82	80	99
Secondary	317	305	390	200	310	213	157	227
Tertiary	291	228	116	213	207	126	136	158
Other	###	###	###	1595	3471	294	585	1462
Unknown	###	134	76	165	104	116	104	116
Total	128	109	101	115	91	90	90	

Source: Unpublished tabulations from the 1990 census micro-data sample, National Statistical Office.

Notes: Unknown migration status excluded.
Males comprise 100 per cent of observations.

(d) Gender, work status and occupation

At the youngest ages, rural-urban migration streams have sex ratios that favour women for the occupational categories of private employees, unpaid family workers and for those not in the labour force (table 20). The sex ratio of those not in the labour force for rural-urban migrants is much lower than for the corresponding non-migrant populations, suggesting that many female migrants come as dependents. There are very few unpaid family workers among rural-urban migrants, but most of those in this category are female.

The most striking characteristic of the high proportion of women, compared with men, working as private employees at young ages, is that the relationship reverses completely at older ages. Furthermore, while the sex ratio for the rural-urban migration stream for private employees is lower than that of non-migrants at the youngest ages, it is higher at older ages. Rural-urban migration disproportionately attracts women into occupations in which most work as private employees only at the youngest ages. This reflects the dependence of industries in urban areas on young female migrant labour.

Table 20. Sex ratios of selected migration streams by work status and age: Thailand, 1990

Age/Work status	*Rural-rural*	*Rural-provincial urban*	*Rural-Bangkok*	*Other migrants*	*Non-migrant rural*	*Non-migrant provincial urban*	*Non-migrant Bangkok*	*Total*
15-24								
Employer	93	167	153	182	172	135	173	165
Self-employed	452	120	134	675	179	107	143	199
Govt.employee	4900	720	152	1308	238	99	130	521
Private employee	98	72	72	88	112	118	81	98
Unpaid family worker	83	66	26	85	92	80	81	91
Not in labour force	68	57	66	69	92	89	88	87
Total	170	81	73	140	99	95	85	
25-39								
Employer	302	270	165	244	242	206	305	251
Self-employed	571	162	184	190	355	120	123	308
Govt.employee	292	184	234	179	182	120	139	164
Private employee	167	158	155	144	132	138	123	133
Unpaid family worker	92	33	24	68	34	43	46	37
Not in labour force	27	15	17	26	24	27	27	25
Total	154	106	118	112	93	87	92	
40+								
Employer	554	999	352	609	331	307	346	337
Self-employed	429	116	131	190	320	137	132	292
Govt.employee	485	361	378	357	381	139	216	288
Private employee	174	218	196	196	138	239	210	161
Unpaid family worker	13	4	5	25	7	13	26	8
Not in labour force	74	49	29	46	50	43	38	47
Total	128	109	100	116	91	90	90	

Source: Unpublished tabulations from the 1990 census micro-data sample, National Statistical Office.

Note: Unknown migration status and work status excluded.

In table 21 the sex ratios of migration streams associated with occupational sectors are shown. At the youngest ages males dominate in professional and administrative occupations and in the transport and production sector. There is a majority of females in the clerical and sales sector and services sector. Even though the most common occupation of female rural-urban migrants is

Table 21. Sex ratios of selected migration streams by occupation and age: Thailand, 1990

Age/Occupation	*Rural-rural*	*Rural-provincial urban*	*Rural-Bangkok*	*Other migrants*	*Non-migrant rural*	*Non-migrant provincial urban*	*Non-migrant Bangkok*	*Total*
15-24								
Prof & admin	4900	537	90	1134	255	67	72	429
Clerical & sales	82	69	49	68	49	64	68	59
Agriculture	111	57	191	210	100	158	92	102
Transport & production	122	158	113	146	133	221	150	140
Services	72	29	19	39	45	36	31	37
Unclassfied	148	39	142	81	112	152	105	112
Total	194	99	75	192	101	105	89	
25-39								
Prof & admin	238	158	128	137	135	85	111	122
Clerical & sales	92	85	92	92	58	69	88	72
Agriculture	184	337	232	179	93	97	116	96
Transport & production	217	229	302	229	187	273	203	204
Services	169	75	60	112	125	93	81	103
Unclassfied	529	46	182	136	128	110	110	128
Total	182	143	153	144	100	109	120	
40+								
Prof & admin	510	204	219	276	309	150	182	221
Clerical & sales	98	77	68	114	69	80	108	81
Agriculture	142	129	126	146	101	140	111	102
Transport & production	256	357	288	295	189	352	339	234
Services	102	223	39	196	241	156	103	163
Unclassfied	243	106	***	159	79	138	134	99
Total	154	156	155	182	106	134	159	

Source: Unpublished tabulations from the 1990 census micro-data sample, National Statistical Office.

Notes: Unknown migration status excluded.
*** Fewer than 100 cases.

in the transport and production occupational sector, there are more male than female rural-urban migrants in this sector. However, for migration to Bangkok from rural areas the sex ratio is only 113, indicating that Bangkok, compared with other urban centres, is drawing almost as many women migrants as male migrants into this sector. For non-migrants at this age, the sex ratio is 150 for Bangkok, implying that the transport and production sectors in Bangkok are more important as a source of employment for female migrants than for non-migrants. But it is only at the youngest ages that this occurs. For ages 25-29 and 40 and above the sex ratio of rural migrants to Bangkok for this sector approaches or exceeds 300. Thus while males find work in this sector at most ages, employment in this sector is most common for females, especially female migrants, at young ages.

This trend of increasing sex ratios by age is also found for professional and administrative occupations for rural migration to Bangkok. At the youngest ages more female than male migrants are found in professional and administrative occupations, but by ages 40 and above there are 219 males for every 100 females among rural-Bangkok migrants in these occupations. Only clerical and sales occupations have more females than males at each age. This is also observed for rural-urban migrants.

The service sector is dominated by females only at ages 15-24 when there are 37 males to every 100 females. This sector employs the second largest number of female rural-urban migrants. For rural-urban migrants the female domination, in contrast to the general population, is also seen at ages 25-39, and for rural migration to Bangkok it is still evident at ages 40 and above. If the sex ratios of rural migrants to Bangkok are compared with those of the non-migrant Bangkok population it can be seen that, although service sector occupations become more concentrated among men with increasing age, this sector remains primarily a female sector of employment, especially for migrants from rural areas.

Although care must be taken in applying a cohort explanation to cross-sectional data, the results discussed above suggest that as females age they, relative to men, become increasingly excluded from the formal occupational market and concentrate in sales and services occupations working as self-employed or as unpaid family workers.

2. Trends in female rural-urban migration

To examine trends in female rural-urban migration, data from the last three censuses (1970, 1980, 1990) are used. The analysis is based on micro-data samples from the three respective censuses. Where necessary, variables have been recoded to ensure that categories have similar meaning over time. As the aim is to examine changes in female migration patterns, only results for females are presented. Because of the importance of Bangkok as a destination of rural-urban migration streams, and hypothesized changes in the role of Bangkok in attracting female migrants over the last twenty years, rural-urban migration is divided into two categories: migration to provincial urban centres and migration to Bangkok.

(a) Trends in demographic selectivity

In table 22 the age distributions of female migrants and non-migrants are shown. For all migration streams, the proportion of migrants aged 5-14 declined over the three decades. This can be attributed to the declines in fertility that took place over the period. Compared with the period 1965-1970, a family migrating together in 1985-1990 had fewer children to take with them. The same decreases over time can be seen for the non-migrant populations. The decline is most evident

Table 22. Percentage age distribution of females by migration status: 1970, 1980, 1990

Year/Age	*Rural-rural*	*Rural-provincial urban*	*Rural-Bangkok*	*Other migrants*	*Non-migrant rural*	*Non-migrant provincial urban*	*Non-migrant Bangkok*	*Total*
1970								
5-14	31.5	24.6	18.0	30.1	24.4	4.9	30.8	33.6
15-19	14.6	21.9	29.7	14.4	12.6	12.9	13.4	13.0
20-24	13.9	18.7	21.9	13.5	8.7	8.7	10.4	9.4
25-29	10.4	11.4	11.2	10.8	7.5	7.5	8.6	7.9
30-39	14.2	12.2	10.4	13.6	14.0	14.5	15.0	14.1
40-49	7.2	5.2	3.6	7.0	9.8	10.1	9.3	9.4
50-59	4.0	2.9	2.6	4.9	6.4	6.7	6.2	6.2
60+	4.3	3.1	2.6	5.7	6.7	7.2	6.4	6.5
Total	100	100	100	100	100	100	100	100
N	920 988	80 075	88 105	438 079	11 066 921	737 263	1 141 205	14 472 646
1980								
5-14	24.4	14.5	13.4	19.7	30.1	25.3	20.9	28.3
15-19	16.0	28.5	31.6	16.3	13.1	13.2	13.4	13.5
20-24	20.7	27.5	26.8	21.1	10.2	11.4	13.6	11.4
25-29	13.4	12.1	12.0	15.4	8.5	10.0	11.3	9.2
30-39	12.5	9.8	10.0	14.1	12.8	14.1	15.9	13.1
40-49	7.0	3.9	3.3	7.1	10.9	11.3	11.3	10.6
50-59	3.4	1.9	1.3	3.2	7.3	7.5	6.7	7.0
60+	2.6	1.9	1.7	3.0	7.1	7.4	6.9	6.8
Total	100	100	100	100	100	100	100	100
N	660 428	101 261	113 535	485 553	14 432 744	1 077 097	1 653 288	18 253 906

(Continued)

Table 22 *(continued)*

Year/Age	*Rural-rural*	*Rural-provincial urban*	*Rural-Bangkok*	*Other migrants*	*Non-migrant rural*	*Non-migrant provincial urban*	*Non-migrant Bangkok*	*Total*
1990								
5-14	17.5	13.4	7.2	23.4	23.1	18.7	15.8	21.8
15-19	14.4	20.7	32.4	14.1	10.8	10.8	10.1	11.2
20-24	23.5	26.0	31.6	20.3	9.8	9.8	12.7	11.1
25-29	17.3	15.2	13.4	14.9	10.7	10.7	12.7	10.4
30-39	15.1	13.6	9.6	15.4	19.6	19.6	20.8	17.2
40-49	5.8	5.4	3.5	5.9	12.4	12.4	12.3	11.3
50-59	3.3	3.5	1.4	3.3	8.8	8.8	7.9	8.5
60+	3.0	2.2	1.0	2.7	9.2	9.2	7.7	8.5
Total	100	100	100	100	100	100	100	100
N	644 304	160 355	224 956	764 260	19 122 601	1 674 251	2 394 123	24 984 930

Source: Unpublished tabulations from the 1970, 1980 and 1990 census micro-data samples, National Statistical Office.

Notes: Percentages may not total to 100 because of rounding.
Unknown migration status excluded.

for rural migrants to Bangkok, with 18 per cent of migrants from rural areas in 1970 aged 5-14 compared with 7.2 per cent of migrants in 1990.

The declines in proportions of migrants who were children are more than compensated for by increases in the proportion of migrants at young adult ages. In 1970 almost 39 per cent of female rural-rural migrants were aged between 15 and 29. In 1990 the corresponding percentage was 55.2. The increasing concentration of migrants at young adult ages is most evident for migration to Bangkok from rural areas. In 1970 almost 63 per cent of migrants in this stream were aged 15 to 29; this increases to 70 per cent in 1980 and 77 per cent in 1990. Furthermore, the increases occurred primarily for the age group 20-24. For migration from rural to provincial urban areas, increases in the per cent of migrants at young adult ages was much less noticeable than for Bangkok.

Even though the proportion of the female population at older ages is increasing, this has not resulted in an increasing proportion of migrants being concentrated at those ages. In fact, there have been declines in the proportions of migrants aged 40 and above. Although the ageing of the population, in addition to the increasing gap in life expectancy between males and females, will probably mean that in the future migration will be concentrated more at older ages, the economic changes in the last twenty years that have resulted in a high demand for young female migrants have outweighed the effects of an ageing population on the age distribution of female migrants.

Changes in the age composition of migrant streams from 1970 to 1990 are associated with changes in the marital status distributions of migrant streams (table 23). For the total population there was relatively little overall change in marital status distributions between the 1970 and 1990 censuses for women aged 15 and above. An increase in the per cent never-married occurred between 1970 and 1980, but there was a small decline between 1980 and 1990. Overall about 60 per cent of women aged 15 and above were currently married at the time of each census. However, as a result of the age structure of migration streams, a much higher proportion of migrants are never-married compared with the non-migrant population. The only exception is for rural-rural migration, where a significant proportion of the movement that takes place is a direct outcome of marriage.

For rural-to-urban migration streams, the never-married comprise a large and increasing share of female migrants. Again, this is most evident for migration to Bangkok, where there has been an increase of 16 percentage points in the per cent never-married among migrants between 1970 and 1990. This can be compared with a

Table 23. Percentage marital status distribution of females aged 15 and above, by migration status: 1970, 1980, 1990

Year/Marital status	*Rural-rural*	*Rural-provincial urban*	*Rural-Bangkok*	*Other migrants*	*Non-migrant rural*	*Non-migrant provincial urban*	*Non-migrant Bangkok*	*Total*
1970								
Never-married	16.9	36.4	50.2	29.7	24.0	31.4	37.8	25.5
Married	74.6	55.1	41.3	57.6	62.3	54.2	50.0	61.3
Widowed	5.9	4.8	4.7	8.8	10.6	10.7	8.0	10.0
Div. & sep.	2.5	3.8	3.7	3.8	3.1	3.6	3.4	3.2
Total	100	100	100	100	100	100	100	100
N	622 302	59 838	72 037	303 500	7 237 740	496 484	788 404	9 580 305
1980								
Never-married	19.0	50.5	56.2	36.0	26.0	33.7	39.4	28.2
Married	73.0	41.8	38.3	56.8	60.9	52.7	50.1	59.4
Widowed	5.1	3.9	2.6	4.2	10.4	10.0	7.5	9.6
Div. & sep.	2.9	3.9	2.9	3.0	2.8	3.6	3.0	2.8
Total	100	100	100	100	100	100	100	100
N	497 490	98 075	86 133	384 982	10 061 483	801 972	1 298 622	13 228 757
1990								
Never-married	20.3	50.7	66.1	40.1	39.1	23.4	33.3	26.8
Married	73.0	42.3	30.0	52.9	49.8	63.1	53.2	60.5
Widowed	4.3	3.4	1.7	3.8	7.2	10.6	9.4	9.6
Div. & sep.	2.4	3.5	2.2	3.2	3.9	2.9	4.1	3.1
Total	100	100	100	100	100	100	100	100
N	528 917	137 726	207 819	575 530	2 001 607	14 630 363	1 350 315	19 432 277

Source: Unpublished tabulations from the 1970, 1980 and 1990 census micro-data samples, National Statistical Office.

Notes: Percentages may not total to 100 because of rounding.
Unknown migration status and marital status excluded.

decline of almost 5 percentage points in the per cent never-married for non-migrants. For rural-to-provincial urban migration there was a 14 percentage point increase, although almost all the change occurred between 1970 and 1980. The increases in percentages of migrants never-married are compensated for by decreases in the percentages currently married and formerly married. These changes can be related to the higher concentration over time of migrants at young adult ages. The results suggest that over the period from 1970 to 1990, rural-to-urban migration became increasingly concentrated among young unmarried females. However, these changes, which characterized all rural-urban migration flows in the period 1970 to 1980, were restricted to flows to Bangkok in the period 1980 to 1990.

(b) Trends in economic selectivity

Education is a very important measure of human capital and therefore is central to an examination of changes in the economic selectivity of migration over time. In table 24 the educational distribution of females aged 15 and over is shown for different migration streams. There have been dramatic increases in educational levels of women in Thailand over the last twenty years. In 1970 almost one-third of women aged 15 and above had no formal education and less than 1 per cent had a tertiary education. In 1990 only 11.6 per cent had no education and 6.3 per cent had a tertiary education. At all three census dates similar percentages of women had been educated to a primary school level.

Table 24. Percentage distribution by education of females aged 15 and above, by migration status: 1970, 1980, 1990

Year/Education	*Rural-rural*	*Rural-provincial urban*	*Rural-Bangkok*	*Other migrants*	*Non-migrant rural*	*Non-migrant provincial urban*	*Non-migrant Bangkok*	*Total*
1970								
None	28.7	14.7	11.5	22.0	34.2	25.1	23.6	31.8
Primary	67.4	69.7	71.7	53.5	63.4	53.9	49.9	61.9
Secondary	2.2	12.5	13.2	15.6	1.5	15.8	18.9	4.3
Tertiary	0.1	1.3	2.1	3.5	0.1	1.9	4.1	0.7
Other	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
Unknown	1.6	1.7	1.6	5.4	0.7	3.2	3.4	1.3
Total	100	100	100	100	100	100	100	100
N	630 866	60 416	72 248	306 163	7 256 210	498 913	790 206	9 615 022
1980								
None	14.4	7.3	5.3	9.1	20.3	14.8	14.0	18.6
Primary	75.7	61.5	72.8	51.6	73.1	54.4	48.6	68.9
Secondary	6.9	22.3	15.0	25.1	5.2	23.3	25.9	9.2
Tertiary	2.5	8.7	4.7	13.0	1.1	6.9	10.1	2.8
Other	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0
Unknown	0.5	0.3	2.2	1.2	0.2	0.5	1.3	0.4
Total	100	100	100	100	100	100	100	100
N	499 498	86 602	98 334	389 812	10 090 094	804 783	1 308 536	13 277 659
1990								
None	6.3	4.4	2.4	4.9	12.9	9.5	8.3	11.6
Primary	74.2	51.3	68.5	46.2	75.6	48.9	41.2	69.0
Secondary	13.2	27.7	18.8	27.3	8.4	25.2	27.6	12.5
Tertiary	5.9	15.2	9.2	19.6	2.8	15.5	21.1	6.3
Other	0.1	0.2	0.0	0.1	0.0	0.1	0.1	0.0
Unknown	0.4	1.2	1.1	1.9	0.2	0.8	1.9	0.5
Total	100	100	100	100	100	100	100	100
N	531 380	138 833	208 827	585 178	14 708 298	1 360 496	2 014 696	19 547 700

Source: Unpublished tabulations from the 1970, 1980 and 1990 census micro-data samples, National Statistical Office.

Notes: Percentages may not total to 100 because of rounding.
Unknown migration status excluded.

The increased levels of education in the general population are magnified for the migrant streams. For example, 29 per cent of rural-rural migrants in 1970 had no formal education. This had decreased to 6.3 per cent in 1990. For rural migrants to Bangkok, the corresponding decrease was from 11.5 to 2.4 per cent. Large increases in the percentage of migrants at the upper end of the educational distribution can also be observed. Although changes in the age structure of migration streams are responsible for some of this change, it is also likely that there has been increased demand for more highly educated workers.

It is notable that rural migrants to provincial urban centres are more highly concentrated at high levels of educational attainment than are rural migrants to Bangkok. Furthermore, this disparity has intensified over time, with declines in the proportion of female rural migrants to provincial urban areas with a primary school level of education, but relatively little change for female rural migrants to Bangkok. It appears that in Bangkok there remains a relatively high, although declining, demand for female workers with low levels of education while in provincial urban centres the demand for this type of worker is declining more rapidly. The other migrant stream, comprised of urban-to-urban and urban-to-rural migrants, had the highest proportion of migrants at the upper levels of educational attainment in all three census years. In 1990 almost 50 per cent of women in this migration stream had either a secondary or a university education.

Changes in the educational levels of migrants are directly reflected in changes in employment patterns. In table 25 the percentage distributions by work status are shown for the three census years. The major changes over the three decades have been a decrease in the percentage of the female population aged 15 and over working as unpaid family workers and an increase in the percentages working as employees, either in the government or in the private sector. In all three censuses about one quarter of women were not in the labour force.

These changes for the general population also occurred in all of the migration streams, although with a different intensity among streams. In 1970 almost two thirds of female rural-rural migrants were unpaid family workers. In comparison, only about 10 per cent of rural-to-urban migrants had this work status. Most rural-to-urban migrants were not in the labour force, with the

Table 25. Percentage distribution by work status of females aged 15 and above, by migration status: 1970, 1980, 1990

Year/Work status	*Rural-rural*	*Rural-provincial urban*	*Rural-Bangkok*	*Other migrants*	*Non-migrant rural*	*Non-migrant provincial urban*	*Non-migrant Bangkok*	*Total*
1970								
Employer	0.1	0.1	0.1	0.2	0.1	0.2	0.4	0.1
Self-employed	6.0	10.1	5.1	8.6	10.1	16.7	10.7	10.1
Govt.employee	1.3	4.5	2.5	5.5	0.6	5.0	5.6	1.5
Private employee	7.9	19.6	35.8	14.9	4.5	9.3	16.4	6.6
Unpaid family worker	63.6	11.5	10.5	23.4	66.3	16.1	12.4	57.0
Not in labour force	21.1	54.2	46.1	47.5	18.4	52.6	54.5	24.7
Total	100	100	100	100	100	100	100	100
N	617 990	59 445	71 604	300 767	7 207 524	494 519	782 695	9 534 544
1980								
Employer	0.0	0.0	0.0	0.1	0.0	0.1	0.2	0.1
Self-employed	7.6	8.3	4.0	9.5	11.4	17.0	10.9	11.4
Govt.employee	4.3	5.9	5.0	11.6	1.7	9.0	8.4	3.2
Private employee	14.7	23.4	49.4	18.3	5.6	9.8	19.3	8.4
Unpaid family worker	52.6	11.3	3.9	14.7	62.7	16.4	8.1	52.0
Not in labour force	20.8	51.1	37.7	45.8	18.5	47.6	53.1	24.9
Total	100	100	100	100	100	100	100	100
N	497 394	85 646	97 125	387 202	10 062 856	801 732	1 301 546	13 233 491
1990								
Employer	0.2	0.5	0.2	0.6	0.2	1.1	1.0	0.4
Self-employed	7.2	8.7	4.1	7.4	12.8	14.4	9.3	12.1
Govt.employee	4.3	7.8	2.0	10.3	2.4	12.4	9.3	4.1
Private employee	23.4	33.9	65.0	29.4	8.7	14.9	27.2	12.8
Unpaid family worker	44.3	9.7	4.2	14.3	56.0	14.1	6.4	45.5
Not in labour force	20.7	39.4	24.4	38.1	19.9	43.1	46.8	25.0
Total	100	100	100	100	100	100	100	100
N	525 544	137 533	207 367	570 540	14 527 976	1 345 202	1 989 938	19 304 100

Source: Unpublished tabulations from the 1970, 1980 and 1990 census micro-data samples, National Statistical Office.

Notes: Percentages may not total to 100 because of rounding.
Unknown migration status and work status excluded.

majority of the remainder being private employees. Over the following twenty years, the percentage of private employees increased dramatically, reaching 23, 34, 65, and 29 per cent of the rural-rural, rural-provincial urban, rural-Bangkok, and other migrant streams, respectively. The main compensating change for the rural-urban streams was a decline in the proportion not in the labour force, with this decline most evident for rural migrants to Bangkok. The other migrant stream had the largest proportion of any stream of women who where employed as government employees.

Migration for women increasingly appears to be associated with economic activity. For all migration streams this activity is becoming concentrated in the private sector, where women work predominately as employees. Employment associated with family enterprises has declined at a faster rate for migration streams than it has for the general population, an indication that migration for women now is less likely to involve family-related movement than it did twenty years ago.

The occupational sectors where female rural-to-urban migrants are most likely to be located are also changing (table 26). However, these changes differ by the type of rural-urban migration stream observed. For rural migration to

Table 26. Percentage distribution by occupation of females aged 15 and above, by migration status: 1970, 1980, 1990

Year/Occupation	*Rural-rural*	*Rural-provincial urban*	*Rural-Bangkok*	*Other migrants*	*Non-migrant rural*	*Non-migrant provincial urban*	*Non-migrant Bangkok*	*Total*
1970								
Prof & admin	1.0	8.4	3.2	9.3	0.6	10.2	10.3	1.7
Clerical & sales	4.3	26.5	13.1	18.8	3.5	42.7	33.3	6.8
Agriculture	86.6	12.5	17.2	41.9	91.9	15.7	16.7	83.4
Transport & production	4.4	18.0	18.8	13.5	3.0	16.1	22.7	4.9
Services	1.7	32.4	46.6	14.0	0.7	14.5	16.0	2.7
Unclassfied	1.9	2.1	1.0	2.5	0.3	0.8	1.0	0.5
Total	100	100	100	100	100	100	100	100
N	500 255	28 200	39 262	163 278	5 931 121	238 720	363 472	7 264 308
1980								
Prof & admin	4.9	9.9	5.0	19.1	107	15.7	15.8	3.7
Clerical & sales	8.6	31.0	13.7	27.3	5.6	44.5	36.3	9.9
Agriculture	72.3	8.8	3.1	18.6	85.8	10.4	7.3	75.0
Transport & production	11.0	20.3	31.6	19.1	5.5	15.3	25.6	7.9
Services	2.7	28.9	44.4	14.6	1.1	13.4	13.7	3.1
Unclassfied	0.5	1.1	2.2	1.3	0.3	0.7	1.2	0.4
Total	100	100	100	100	100	100	100	100
N	396 137	42 856	61 756	221 657	8 227 402	422 778	617 964	9 981 550
1990								
Prof & admin	4.5	11.5	3.7	15.8	2.4	20.1	23.4	5.4
Clerical & sales	10.8	32.1	18.3	27.8	7.2	46.2	38.5	12.5
Agriculture	60.2	4.8	1.3	16.6	81.7	7.9	3.3	68.5
Transport & production	17.7	21.7	48.5	22.8	6.8	14.6	21.8	9.5
Services	6.0	28.5	27.7	14.0	1.2	10.0	10.8	3.3
Unclassfied	0.8	1.5	0.6	3.1	0.7	1.2	2.1	0.9
Total	100	100	100	100	100	100	100	100
N	422 394	84 667	158 180	367 976	11 819 319	781 311	1 083 653	14 717 500

Source: Unpublished tabulations from the 1970, 1980 and 1990 census micro-data samples, National Statistical Office.

Notes: Percentages may not total to 100 because of rounding.
Unknown migration status excluded.

provincial urban centres the changes over time in occupational distribution have been relatively small, with the main increases coming in professional, administrative, clerical and sales sectors. At all three census dates, approximately 20 per cent were in the transport/production sector and a further 30 per cent were in services. The occupational distribution of rural migrants to Bangkok, however, has changed dramatically over the last twenty years. For all three censuses there were between 65 and 75 per cent located in the transport/production and the services sectors. In 1970, almost 20 per cent were in transport/production while 47 per cent were in services. By 1990 the respective shares had reversed, with almost 50 per cent in transport/production and 28 per cent in services.

The rapid increase in opportunities for female employment in factories has been a major motivating force behind the migration of women, especially young and single women who are preferred for these positions. Most of the increase in this type of employment has occurred in Bangkok. However, non-migrants in Bangkok have not entered these occupations, with only 22.7 per cent of the Bangkok non-migrants engaged in this sector in 1970 and 21.8 per cent in 1990. For non-migrants in Bangkok, the main change that has occurred in the occupational distribution has been increased proportions working in the professional/administrative occupational sector. Thus the demand for female workers in the industrial sector is being met largely through the employment of migrants.

3. Implications of rural-urban migration for female status

Both among academics and policy makers there has been a concern expressed that the migration of females results in their being placed at risk of exploitation because of the poor living conditions into which they move. Others have argued that migration for females provides new opportunities and hence leads to improvements in their status. Census data do not allow a detailed evaluation of these arguments. However, data on living arrangements, economic position and reproductive behavior provide an opportunity to compare female migrants and non-migrants on some of these dimensions. These comparisons, made using 1990 Census data, are shown below.

(a) Living arrangements

It can be seen from table 27 that most women live with immediate household members. As women proceed through the life cycle their position in relation to the household head also changes, although they generally remain in a dependent position. For women aged 15-24 in 1990, almost two thirds were the child of the household head. At ages 25-39 one quarter remained as children but there were also almost 60 per cent who were the spouse of the household head. At ages 40 and over, mortality of husbands or divorce had left 25 per cent as head of their household while another 60 per cent remained the spouse of the household head.

Migration reduces the likelihood that women will live with immediate family members. In rural-rural migration, the main change is that women are more likely to live with more distant relatives than with immediate family members. Because rural-rural migration is often undertaken in conjunction with marriage, a higher proportion of rural-rural migrants than rural non-migrants are found in the spouse category at ages 15-24. Therefore rural-to-rural migration rarely takes women outside the family network, and in so far as it is related to marriage, it often involves only the exchange of one dependent position (child) for another (spouse).

Rural-to-urban migration presents a different set of living arrangements to women. At ages 15 to 24 almost half of rural-to-provincial urban migrants, and 53 per cent of rural-to-Bangkok migrants, live apart from their families. Most of the rural-to-provincial urban migrants lived in collective households, many of which were dormitories. This indicates that much of the movement of young women to provincial centres from urban areas is undertaken in order to further their education. Some of the dormitory living was also probably associated with factory employment. In Bangkok, however, most young women lived with non-relatives outside of collective households. These women were likely to be sharing rented accommodation with friends. In comparison with the 11.4 per cent of the non-migrant female population of Bangkok aged 15-24 who lived with other relatives or were the head of a household, 42.4 per cent of migrants from rural areas to Bangkok were in these categories. These women were, by Thai standards, living in very unusual circumstances.

At older ages there is a reduction in the proportion of rural-to-urban migrants living apart from family members, primarily because many

Table 27. Percentage distribution by relationship to household head of females aged 15 and above, by migration status and age, 1990

Age/ Relationship to household head	*Rural-rural*	*Rural-provincial urban*	*Rural-Bangkok*	*Other migrants*	*Non-migrant rural*	*Non-migrant provincial urban*	*Non-migrant Bangkok*	*Total*
Ages 15-24								
Household head	4.2	7.1	8.1	7.0	0.0	1.9	3.7	2.0
Spouse	33.8	14.2	13.6	15.6	13.2	7.7	8.1	13.4
Child	15.9	12.3	3.3	18.9	73.3	63.8	56.4	63.3
Other relative	34.6	17.4	21.9	27.6	11.8	19.4	21.1	15.2
Non-relative	8.3	23.5	34.3	16.6	0.7	6.0	7.8	4.0
Collective	3.2	25.5	18.8	14.3	0.1	1.2	2.9	2.1
Total	100	100	100	100	100	100	100	100
N	244 398	74 836	143 845	263 029	3 964 590	343 646	546 572	5 580 916
Ages 25-39								
Household head	8.4	14.9	14.9	13.5	5.4	11.3	13.6	7.3
Spouse	69.5	55.5	44.4	56.1	62.4	47.7	41.9	58.7
Child	4.2	5.4	2.0	6.2	24.9	25.0	22.5	23.1
Other relative	13.7	10.3	15.1	15.4	6.8	13.2	17.1	9.0
Non-relative	2.9	10.3	16.3	6.7	0.4	2.4	3.8	1.4
Collective	1.3	3.6	7.3	2.1	0.1	0.3	1.0	0.4
Total	100	100	100	100	100	100	100	100
N	208 524	46 237	51 775	231 328	5 054 216	508 065	800 608	6 900 753
Ages 40+								
Household head	18.9	25.9	21.6	24.4	24.3	30.1	30.2	25.2
Spouse	56.1	47.7	36.7	44.4	62.1	50.8	44.6	59.3
Child	1.0	0.8	0.5	1.6	3.8	4.9	3.5	3.8
Other relative	19.8	21.2	25.1	25.3	9.4	13.2	18.9	10.9
Non-relative	2.1	2.8	13.6	2.8	0.3	0.8	2.2	0.6
Collective	2.0	1.6	2.5	1.3	0.1	0.1	0.6	0.2
Total	100	100	100	100	100	100	100	100
N	78 440	17 774	13 189	90 799	5 689 500	508 787	667 517	7 066 006

Source: Unpublished tabulations from the 1990 census micro-data sample, National Statistical Office.

Notes: Percentages may not total to 100 because of rounding.
Unknown migration status excluded.

marry and occupy the position of spouse. However, compared with other migration streams and non-migrants, a higher proportion of rural-urban migrants live with non-relatives or in collective living arrangements. Even at ages 25-39 almost one quarter of women who migrated from rural areas to Bangkok lived in such a situation. This can be compared with only 4.8 per cent of the non-migrant female population of Bangkok aged 25-39 living with non-relatives or in collective households.

(b) Economic position

In table 28 the economic activity of the female population aged 15 and over is shown for the migrant and non-migrant populations. At ages 15-24 – ages at which the majority of migration occurs – 47 per cent of the female population were employed. In comparison, 78 per cent of rural migrants to Bangkok, and 56 per cent of rural migrants to provincial urban centres were employed. The contrast holds when comparing the non-migrant and migrant populations. For example, only 43 per cent of the non-migrant female population of Bangkok at these ages were working, compared with the 78 per cent of female rural migrants to Bangkok who were working.

Much of the difference between the migrant and non-migrant populations at ages 15-24 is a result of higher levels of school attendance among the non-migrant population. Almost 40 per cent

Table 28. Percentage distribution by economic activity of females aged 15 and above, by migration status and age, 1990

Age/ Economic activity	*Rural-rural*	*Rural-provincial urban*	*Rural-Bangkok*	*Other migrants*	*Non-migrant rural*	*Non-migrant provincial urban*	*Non-migrant Bangkok*	*Total*
Ages 15-24								
Employed	57.9	55.8	77.5	52.1	45.9	39.9	43.3	47.1
Looking for work	3.7	4.3	3.6	5.0	6.6	8.5	7.7	6.5
Waiting for farm season	13.6	0.2	0.0	2.9	22.1	0.8	0.0	16.5
Home duties	18.8	10.5	7.3	13.1	12.1	12.9	8.6	12.0
Student	3.6	27.5	10.4	25.1	11.1	36.1	39.1	15.9
Other	1.6	1.2	0.7	0.9	1.5	1.1	0.6	1.3
Unknown	0.8	0.5	0.5	0.9	0.8	0.7	0.8	0.8
Total	100	100	100	100	100	100	100	100
N	244 393	74 836	143 842	263 024	3 964 575	343 652	546 566	5 580 888
Ages 25-39								
Employed	60.6	67.7	74.0	67.2	56.3	71.8	69.2	59.7
Looking for work	2.2	1.7	3.7	2.2	2.3	2.9	3.5	2.5
Waiting for farm season	11.8	0.3	0.0	2.1	22.8	0.6	0.0	17.2
Home duties	23.1	27.7	20.1	25.9	17.0	22.5	24.2	18.8
Student	0.1	0.6	1.0	0.9	0.1	0.9	1.3	0.4
Other	1.3	1.5	0.6	0.8	0.9	0.8	0.9	0.9
Unknown	0.8	0.6	0.5	0.9	0.5	0.7	0.9	0.6
Total	100	100	100	100	100	100	100	100
N	231 324	46 232	51 770	208 519	5 054 187	508 070	800 607	6 900 709
Ages 40+								
Employed	46.3	52.9	56.3	47.2	41.0	49.4	42.8	41.9
Looking for work	1.9	0.4	1.0	0.7	1.2	0.5	0.5	1.1
Waiting for farm season	11.9	0.8	0.0	2.6	21.7	1.2	0.1	17.8
Home duties	14.0	27.8	19.6	24.1	12.3	22.0	26.9	14.6
Student	0.0	0.0	0.5	0.1	0.0	0.1	0.2	0.1
Other	25.1	17.7	22.1	24.3	23.2	26.3	28.5	23.9
Unknown	0.9	0.4	0.5	1.1	0.6	0.6	0.9	0.6
Total	78 434	17 773	13 201	90 796	5 689 449	508 782	667 508	7 065 940
N								

Source: Unpublished tabulations from the 1990 census micro-data sample, National Statistical Office.

Notes: Percentages may not total to 100 because of rounding.
Unknown migration status excluded.

of non-migrant females aged 15-24 living in Bangkok were students compared with only 10 per cent of rural migrants to Bangkok. Hence much of the higher economic activity of rural-urban migrants at younger ages is a result of their lower levels of participation in education. It is interesting to note, however, that approximately 28 per cent of female migrants aged 15-24 to provincial urban areas were students. Bangkok draws young female rural migrants mainly for employment, while many of the young women going to provincial urban centres go to study, possibly because facilities are not available in nearby rural areas.

At ages 25-39, levels of labour force participation among rural-to-urban migrants and non-migrant urban populations converge. Only rural migrants to Bangkok have labour force participation rates that are substantially higher than the non-migrant population (i.e. Bangkok non-migrants). It should be noted that the level of labour force participation of female rural-urban migrants is higher than that of rural-non migrants, although this is largely due to the large numbers of rural women who are waiting for the commencement of the farm season (the census was conducted in the slack agricultural season).

Except at ages 15-24 there were low proportions of the population who were seeking employment. Approximately 6.5 per cent of women aged 15-24 were looking for work. For all migration streams the proportion seeking employment at these ages was less than in the non-migrant population, and was lowest of all (3.6 per cent) for rural migrants to Bangkok. It is likely that migration is used to overcome problems of finding employment in the area of origin and hence it is not surprising that migrants have lower rates of unemployment than non-migrants. Results from the NMS show that the vast majority of migrants to Bangkok had already arranged employment before they arrived or found work within one month of arrival (Chamratrithirong *et al.*, 1993).

4. Effects of rural-urban migration on reproductive behaviour

(a) Age at first marriage

Age at marriage is not available from the 1990 census. Hence in order to examine the influence of rural-urban migration on age at marriage, it is necessary to use indirect estimates based on census data, or to use survey data where available. The singulate mean ages at marriage (SMAM) calculated from 1990 census data are 26.0 and 26.8 for migrants and non-migrants, respectively, living in urban areas, and 20.0 and 22.9 for migrants and non-migrants living in rural areas. This would appear to suggest that migration, whether it is directed at rural or urban areas, is associated with an earlier age at marriage. However, a more likely explanation is that marriage for many women triggers migration.

Another way to examine the relationship between marriage and migration is to compare the distribution among marital statuses of different migration groups. This comparison is shown in table 29 for separate age groups. At ages 13-19 approximately 90 per cent of non-migrants have not married. This is a much higher percentage than for rural-rural migrants, but slightly lower than for rural migrants to Bangkok. At older ages the same pattern is retained but the differences become greater. For example, at ages 20-24 almost 50 per cent of non-migrants are in the never-married category, compared with 23.5 per cent of rural-rural migrants, 67.3 per cent of rural-to-provincial urban migrants and 70.6 per cent of rural-to-Bangkok migrants. At ages 30-39, one-third of migrants from rural areas to Bangkok have never married.

The data in table 29 clearly show that migration to urban areas, particularly Bangkok, is associated with later ages at marriage. Conversely, migration within rural areas is related to early marriage. The types of employment opportunities available in urban areas encourage the migration of single women. After migration it is possible that opportunities for marriage decrease and also that the economic need for marriage decreases.

Table 29. Percentage marital status distribution of females aged 13 to 49 years by age and migration status, 1990

Migration status/Marital status	*Age*					*Total*
	13-19	*20-24*	*25-29*	*30-39*	*40-49*	
Non-migrant						
Never-married	90.4	49.5	25.4	12.0	5.8	37.2
Currently married	9.0	47.0	69.8	80.9	75.2	57.1
Formerly married	0.7	3.5	4.8	7.1	19.3	5.7
Total	100	100	100	100	100	100
N	3 522 119	2 389 115	2 350 952	4 090 682	2 751 010	15 103 879

(Continued)

Table 29 *(continued)*

Migration status/Marital status	*Age*					*Total*
	13-19	*20-24*	*25-29*	*30-39*	*40-49*	
Rural-to-rural migrant						
Never-married	60.6	23.5	13.3	6.8	3.0	24.8
Currently married	39.1	75.1	83.6	86.6	81.1	71.6
Formerly married	0.4	1.4	3.1	6.5	15.9	3.6
Total	100	100	100	100	100	100
N	112 963	151 507	111 372	97 301	37 345	510 218
Rural-to-provincial urban migrant						
Never-married	90.2	67.3	36.7	13.5	5.5	55.8
Currently married	9.1	31.0	58.0	78.4	75.2	40.0
Formerly married	0.7	1.7	5.4	8.0	19.3	4.2
Total	100	100	100	100	100	100
N	38 994	41 493	24 278	21 745	8 616	135 126
Rural-to-Bangkok migrant						
Never-married	92.3	70.6	41.1	33.8	14.4	68.7
Currently married	7.6	29.0	55.2	56.6	57.6	28.5
Formerly married	0.2	0.5	3.8	9.5	28.0	2.8
Total	100	100	100	100	100	100
N	79 855	71 027	30 070	21 574	7 833	210 358
Total population						
Never-married	89.3	49.4	25.3	12.1	5.8	36.6
Currently married	10.0	47.5	70.1	80.8	81.1	51.8
Formerly married	0.7	3.2	4.7	7.1	13.1	5.6
Total	100	100	100	100	100	100
N	3 882 085	2 806 137	2 629 132	4 347 333	2 849 668	16 514 355

Source: Unpublished tabulations from the 1990 census micro-data sample, National Statistical Office.

Notes: Percentages may not total to 100 because of rounding.
Unknown marital status and migration status excluded.

(b) Contraceptive use

The 1990 Thai census included a question on current contraceptive use. The question was asked of all currently married women. The per cent of women using contraception is shown for age groups and by migration status in table 30. Overall, 67.1 per cent of currently married women aged 15-49 stated that they were using a form of contraception. The differences in levels of contraceptive use among the various migration streams are relatively small. Non-migrants were the most likely to be using contraception, with rural-to-provincial urban migrants and other migrants the least likely to be using. Levels of usage for rural-to-Bangkok migrants were about five percentage points lower than those of non-migrants.

The lower rates of contraceptive use for migrants may relate to difficulties of access or a lack of a need for contraception. Difficulties of access could arise because migrants are relatively new to their location and hence may not be aware of where to go to obtain contraception. The lack of need may result from spouses being separated through migration. However, the results clearly indicate that the fertility transition has proceeded

Table 30. Per cent of women currently using contraception by migration status and age, 1990

Age	*Migration status*					*Total*
	Non-migrant	*Rural-rural*	*Rural-provincial*	*Rural-Bangkok*	*Other migrants*	
15-19	46.9	40.3	44.7	49.8	43.6	47.0
20-24	59.3	54.1	52.8	56.9	50.7	58.5
25-29	67.6	54.3	58.6	65.8	58.3	67.0
30-39	74.4	64.9	60.9	73.3	63.6	74.0
40-49	64.0	67.4	62.5	62.1	59.3	64.0
Total	67.7	58.5	56.0	62.7	57.6	67.1
N	8 091 908	50 493	55 560	345 286	260 437	8 803 684

Source: Unpublished tabulations from the 1990 census micro-data sample, National Statistical Office.

Notes: Unknown contraceptive use and migration status excluded.

to such an extent in Thailand that most groups of women, whether they be migrants or non-migrants, have their contraceptive demands adequately serviced.

(c) Fertility

The only direct question about fertility asked in the census was about the number of children that a woman had borne (CEB). Because this question refers to fertility behaviour over a relatively long period, while migration refers to an event that occurred sometime in the five years prior to the census, CEB is not an ideal measure to assess the relationship between migration and fertility. Previous analyses of 1990 census data show that rural-urban migration is associated with lower levels of CEB compared with other forms of migration and with rural non-migrants. For example, rural non-migrants aged 45-49 had given birth to an average of 4 children compared with 3.2 for rural-to-urban migrants, 3.9 for rural-to-rural migrants, 3.2 for urban non-migrants and 3.1 for urban-to-rural migrants (NSO, 1993).

Thailand has undergone dramatic declines in fertility during the last two decades and it is possible that relationships between migration and fertility that previously existed, and that are captured when using CEB as the measure of fertility, are no longer valid. Hence in table 31 another measure of fertility, obtained by matching the

Table 31. Mean number of children aged 0-3 living with mother, by age of mother and migration status, 1990

Migration status	*Age*							*Total*
	15-19	*20-24*	*25-29*	*30-34*	*35-39*	*40-44*	*45-49*	
1970								
Rural-rural	0.24	0.91	1.10	1.01	0.91	0.59	0.18	0.74
Rural-provincial urb	0.11	0.54	0.81	0.71	0.57	0.37	0.14	0.45
Rural-Bangkok	0.07	0.42	0.63	0.66	0.53	0.44	0.12	0.34
Other migration	0.13	0.54	0.80	0.65	0.58	0.30	0.10	0.47
Non-migrant rural	0.11	0.71	1.03	0.98	0.83	0.53	0.15	0.60
Non-migrant prov urb	0.07	0.45	0.78	0.69	0.54	0.32	0.11	0.41
Non-migrant Bangkok	0.04	0.30	0.62	0.68	0.47	0.27	0.11	0.33
Total	0.11	0.67	0.98	0.92	0.78	0.49	0.15	0.57
N	1 876 017	1 354 102	1 139 102	1 074 953	956 170	765 069	596 794	7 163 103

(Continued)

Table 31 *(continued)*

Migration status	*Age*							*Total*
	15-19	*20-24*	*25-29*	*30-34*	*35-39*	*40-44*	*45-49*	
1980								
Rural-rural	0.20	0.65	0.66	0.60	0.40	0.32	0.15	0.49
Rural-provincial urb	0.03	0.42	0.41	0.28	0.23	0.10	0.08	0.27
Rural-Bangkok	0.03	0.26	0.43	0.32	0.25	0.27	0.08	0.21
Other migration	0.07	0.39	0.52	0.43	0.35	0.17	0.06	0.33
Non-migrant rural	0.06	0.47	0.62	0.48	0.33	0.23	0.10	0.33
Non-migrant prov urb	0.02	0.22	0.40	0.37	0.22	0.11	0.05	0.21
Non-migrant Bangkok	0.03	0.27	0.44	0.40	0.28	0.13	0.04	0.23
Total	0.06	0.44	0.58	0.47	0.33	0.22	0.09	0.31
N	2 494 580	2 121 555	1 715 629	1 360 559	1 076 508	1 076 508	912 065	10 757 124
1990								
Rural-rural	0.21	0.53	0.55	0.39	0.10	0.21	0.05	0.49
Rural-provincial urb	0.07	0.30	0.41	0.35	0.14	0.04	0.05	0.25
Rural-Bangkok	0.02	0.12	0.23	0.14	0.09	0.07	0.00	0.10
Other migration	0.06	0.19	0.32	0.31	0.20	0.06	0.01	0.20
Non-migrant rural	0.06	0.36	0.40	0.27	0.15	0.08	0.04	0.21
Non-migrant prov urb	0.02	0.11	0.22	0.22	0.14	0.05	0.02	0.13
Non-migrant Bangkok	0.05	0.30	0.37	0.25	0.14	0.07	0.03	0.19
Total	0.06	0.31	0.37	0.26	0.15	0.07	0.03	0.20
N	2 639 312	2 537 758	2 455 400	2 269 322	1 897 712	1 497 031	1 264 333	14 560 868

Source: Unpublished tabulations from the 1970, 1980 and 1990 census micro-data samples, National Statistical Office.

Note: Unknown migration status excluded.

census records of children and mothers, is used (own-children method). The measure is the mean number of children aged 0-3 and therefore relates to fertility in the four years before each census. The results are shown for the censuses conducted in 1970, 1980 and 1990.

The declines in fertility across the three census years can be clearly seen; the mean number of children for women aged 15-49 had declined from 0.57 in 1970 to 0.20 in 1990. The declines occurred for all age groups. The relationships between migration status and fertility observed for CEB are also evident in the own-children data at each age and for the combined ages. Rural-to-rural migrants had the highest levels of fertility, followed by rural non-migrants and then other migrants. The fertility of rural-to-urban migrants was similar to that of non-migrant groups in their respective urban places of residence.

By 1990 the relationships had changed somewhat. Rural-rural migrants had levels of fertility that were almost double that of any other group and probably reflected the role of this migration stream in the initiation of family formation. Non-migrant populations and other migrant populations had similar levels of fertility, with the exception of migrants to Bangkok and non-migrants in provincial urban centres. Both these groups had extremely low levels of recent fertility. Therefore, while the magnitude of the differences in fertility between different migrant and non-migrant groups has declined over time, it appears that rural-urban migration, particularly to Bangkok, plays a role in reducing fertility.

5. Implications of patterns of female rural-urban migration

Female rural-urban migrants are typically young and unmarried. In the main, they move between regions, with Bangkok as the main destination. They have high levels of labour force participation and, compared with rural non-migrants, are more highly educated. Over the last 20 years there has been increasing differentiation of female rural-urban migrants on these characteristics. This appears to be related to the industrialization of Thailand with an associated demand for young, single female labour.

Though women as well as men largely migrate for economic reasons, we have seen evidence that family responsibilities affect many female migrants. A considerable proportion of women migrants are out of the labour force undertaking household work, particularly in rural areas. These findings reflect women's domestic responsibilities, as they are responsible for maintaining and caring for family members, whether these include parents, siblings, husbands and/or children.

Migration from rural-to-urban areas attracts women with different characteristics than those of women who are rural non-migrants and rural-to-rural migrants. Apart from being more likely to be young and single, these women are most often working as private employees in the transport and production sectors of the economy and are living with non-relatives. These characteristics are particularly evident for rural migrants to Bangkok, compared with migrants to provincial urban areas.

Female rural-to-urban migrants, however, have not forsaken the domestic responsibilities that characterize their rural non-migrant counterparts. They continue to perform their expected roles of supporting family members by high levels of remittances of the wages they earn in the city (Archavanitkul and Guest, 1993; Kaosa-ard *et al.*, 1993). In fact, the importance of remittances made by migrant females to the economy of rural households may be an important motivation for migration. This is particularly likely where, as in much of rural Thailand, there are limited employment opportunities for women.

As female migrants are concentrated in the young adult ages and, in many cases, migrate outside of the family and community networks, they are a particularly vulnerable group. Archavanitkul and Guest (1993) have noted the large numbers of young migrant women who enter into the commercial sex industry in urban areas. While it is undisputable that the vast majority of these women enter into the sex industry through their own decision, the lack of family influences and their young ages are probably factors which make it more likely that they will make this decision.

On the other hand, rural-urban migration can have influences which are normally seen to be beneficial to improving the status of women, including enhancing the ability to make autonomous decisions (even if the decisions are not the socially desired decisions). This can help in delaying marriage, lowering fertility, gaining economic independence through involvement in the paid labour force etc.

One finding reported above, however, is that the labour force opportunities for migrant women appear to be restricted. While they participate in large numbers in occupations in the production sector, this is primarily confined to young women. At older ages migrant women are more likely to be found in service sector employment.

E. RURAL-URBAN MIGRATION AND LABOUR FORCE AND POPULATION STRUCTURE

1. Labour force structure

The purpose of this section is to provide a detailed examination of occupational structure in relation to migration, particularly rural-urban migration. Some of the issues examined in the section have been touched upon in previous sections. For example, in section C there was a brief discussion of occupational characteristics of migrants, and in section D gender differences in labour force characteristics were addressed. In this section these topics will be treated in more depth, with particular emphasis being placed on the growth of the labour force between 1980 and 1990. A further aim of the section is to provide some indication of the effects of rural-urban migration on the demographic structure of the population. This is undertaken through a comparison of age and sex structures of rural and urban populations.

(a) Composition of labour force

Data from the 1990 census show that men in the urban areas are concentrated in the production and sales occupations, with almost half of the urban labour force in these two occupational sectors (table 32). Apart from these two occupational groups, five other sectors – professional, administrative, clerical, transport and services – each contained between 7 and 12 per cent of the labour force. Agriculture is the major occupational sector of males in rural areas, with approximately 76 per cent in this occupational group. Production occupations employ the second largest number of rural males, with 9 per cent in this category, but no other occupation employs more than 3 per cent of the male rural labour force. Because of the large size of the rural labour force relative to the urban labour force, the actual numbers employed in many of the occupational sectors are similar in both areas. In fact in some occupations, such as the administrative sector, there are many more males employed in rural than in urban areas. Therefore, even though the relative size of the rural labour force in many occupational categories is small, in absolute terms the rural non-agricultural sector is sufficiently large to act as a significant source and destination for urban labour.

Table 32. Migration status of employed persons by occupation and sex for municipal and non-municipal areas, 1990

Area/Occupation	*Males*					*Females*				
	Number	*Per cent*				*Number*	*Per cent*			
		Non-mig	*Urb-urb*	*Rur-urb*	*Total*		*Non-mig*	*Urb-urb*	*Rur-urb*	*Total*
Municipal										
Professional	333 000	88.4	7.4	4.3	100.0	411 700	90.6	5.9	3.6	100.0
Administrative	225 700	82.6	9.4	8.0	100.0	50 200	92.2	4.8	3.0	100.0
Clerical	225 000	88.1	6.4	5.6	100.0	241 200	86.4	6.4	7.2	100.0
Sales	507 600	88.7	5.8	5.5	100.0	655 800	88.7	5.1	6.2	100.0
Agricultural	145 600	90.6	3.0	6.5	100.0	107 200	92.8	1.4	5.8	100.0
Mining	1 500	86.7	6.7	6.7	100.0	100	100	0	0	100.0
Transport	270 200	88.3	4.4	7.3	100.0	10 100	96.0	1.0	3.0	100.0
Production	789 250	76.1	6.6	17.3	100.0	481 400	73.0	6.8	20.2	100.0
Services	200 400	79.1	8.7	12.2	100.0	304 800	66.5	10.2	23.3	100.0
Not Classified	15 600	90.4	5.8	3.4	100.0	9 600	88.5	2.1	9.4	100.0
Total	2 714 200	83.8	6.5	9.7	100.0	2 272 100	82.8	6.2	11.0	100.0
	Number	*Per cent*				*Number*	*Per cent*			
		Non-mig	*Rur-rur*	*Urb-rur*	*Total*		*Non-mig*	*Rur-rur*	*Urb-rur*	*Total*
Non-municipal										
Professional	315 000	88.0	7.3	4.7	100.0	311 900	87.9	6.3	5.8	100.0
Administrative	462 500	52.6	40.9	6.5	100.0	19 900	90.5	5.5	4.0	100.0
Clerical	141 300	79.8	11.0	9.1	100.0	136 100	82.2	9.3	8.5	100.0
Sales	444 600	90.7	5.9	3.4	100.0	793 200	93.0	4.3	2.7	100.0
Agricultural	10 294 600	95.7	3.6	0.7	100.0	10 324 100	97.2	2.5	0.3	100.0
Mining	15 000	90.0	10.4	0.7	100.0	7 000	92.9	7.1	0.0	100.0
Transport	300 300	89.3	6.9	3.9	100.0	13 400	89.6	3.7	6.7	100.0
Production	1 242 460	87.5	8.6	3.9	100.0	878 700	88.4	8.6	3.1	100.0
Services	214 000	79.6	12.6	7.8	100.0	181 200	79.4	15.1	5.6	100.0
Not Classified	14 500	83.5	11.0	5.5	100.0	12 600	82.5	9.5	7.9	100.0
Total	13 445 300	92.5	5.9	1.6	100.0	12 678 100	95.6	3.4	1.0	100.0

Source: NSO (1993).

Note: Percentages may not sum to 100 because of rounding.

For females the occupation distribution in rural areas is similar to that of males, with approximately 81 per cent in the agricultural sector and a further 7 per cent in production occupations. There is also a significant percentage (6) who have occupations in the sales sector. In urban areas, production and sales occupations are the largest sectors for female employment, as they were for male employment. However, for females the ordering of the two sectors is reversed, with 29 per cent of the women employed in sales occupations and 21 per cent in production sector occupations. For women, three other occupational sectors are major areas of employment in urban areas – professional, service and clerical occupations.

The largest differences in the occupational distributions of men and women in urban areas lie in the proportion of each occupational sector who are rural-to-urban migrants. For the total the differences are not great, with 9.7 per cent of the male labour force in urban areas being migrants from rural areas, and a further 6.5 per cent having migrated from another urban place, compared with 11 per cent of females who were rural-urban migrants and 6.2 per cent of females who were urban-urban migrants. However, while 33.5 per cent of female urban service sector workers were migrants (23.3 rural-urban) the corresponding percentage for males was 20.9 (12.2 rural-urban). In production occupations, rural-urban migrants comprised a greater proportion of female workers than male workers, although for both sexes the proportions were high. Male rural-urban migrants were a much greater proportion of workers in administrative and transport occupations than were female rural-urban migrants. A similar sex differential was observed in these occupational sectors for urban-urban migration. Hence, although both male and female migrants from rural areas are most likely to find employment in production and service sectors, female migrants are much more likely than male migrants to be concentrated in these occupations. Female migrants, particularly rural-to-urban migrants, are a very small proportion of professional, administrative and transport occupational sectors.

In rural areas, urban-to-rural migrants make up a small proportion of the labour force. However, this is primarily a result of their low levels of participation in agricultural occupations. Only 0.7 per cent of men and 0.3 per cent of women working in this sector had migrated from urban areas. In contrast, over 4 per cent of men and women working in professional, administrative, clerical and service occupations had migrated from urban areas. For occupations that require higher levels of training, it appears that some of the rural demand is satisfied through importation of labour from urban areas. It is also apparent that migration within rural areas provides opportunities for many men and women to work in non-agricultural occupations, particularly more highly skilled occupations and in the service industry. Although only a small proportion of those working in agriculture were migrants, the vast majority of whom were rural-rural migrants, the predominance of agricultural occupations in rural areas results in rural-rural migration involving agricultural occupations being the dominant migration stream in Thailand.

Approximately 70 per cent of men and 63 per cent of females in the urban labour force are employees (table 33). A higher proportion of males than females are own account workers while women are more likely than men to be working as unpaid family workers. The rural labour force includes a much higher percentage of own account and unpaid family workers than does the urban labour force. In rural areas, 47 per cent of males are own account workers, 30 per cent unpaid family workers and 22 per cent employees. The corresponding percentages for the female rural labour force are 15, 70, and 15 per cent. The very high proportion of rural women who are unpaid family workers and the high proportions of men who are own account workers reflect the importance of the family-owned and -operated farm in rural Thailand.

The urban work status category with the highest proportion of workers who are migrants is employees. For males, approximately 19 per cent of this category are migrants, with 11.7 per cent rural-to-urban migrants and the remaining 7.4 per cent urban-urban migrants. For females, the percentage is slightly higher, with 14.2 per cent of employees in the urban labour market having migrated from a rural area in the period 1985-1990 and a further 7.4 per cent having migrated from another urban area. It appears from these data that most migrants enter the urban labour market as employees. There are relatively small proportions of own account workers who are recent migrants. Much of the migration literature is premised on the assumption that self-employment is the major area of employment for migrants because of the ease of entry and exit. Census data do not support this argument, although among seasonal and other temporary migrants self-employment may be an important work status. Relatively small proportions of migrants to urban areas work in the status of unpaid family labour. Again this suggests that the migration to urban areas is primarily directed towards obtaining employment in the paid labour force.

Table 33. Migration status of employed population by work status and sex for municipal and non-municipal areas, 1990

Area/Work status	*Males*					*Females*				
	Number	*Per cent*				*Number*	*Per cent*			
		Non-mig	*Urb-urb*	*Rur-urb*	*Total*		*Non-mig*	*Urb-urb*	*Rur-urb*	*Total*
Municipal										
Employer	109 300	93.1	4.2	2.7	100.0	37 700	91.5	4.8	3.7	100.0
Own-account	552 600	90.0	4.5	5.5	100.0	425 600	91.0	4.1	4.9	100.0
Employee	1 903 000	80.9	7.4	11.7	100.0	1 442 100	78.5	7.4	14.2	100.0
Unpaid family	149 300	91.4	3.8	4.9	100.0	366 700	89.3	4.5	6.2	100.0
Total	2 714 200	83.8	6.5	9.7	100.0	2 272 100	82.8	6.2	11.0	100.0
	Number	*Per cent*				*Number*	*Per cent*			
		Non-mig	*Rur-rur*	*Urb-rur*	*Total*		*Non-mig*	*Rur-rur*	*Urb-rur*	*Total*
Non-municipal										
Employer	107 000	95.3	2.5	2.2	100.0	38 100	94.8	2.4	2.9	100.0
Own-account	6 286 100	96.1	3.0	0.9	100.0	1 937 700	97.2	2.0	0.8	100.0
Employee	3 004 700	82.1	13.5	4.4	100.0	1 888 300	88.2	8.1	3.6	100.0
Unpaid family	4 046 000	94.7	4.7	0.6	100.0	8 814 000	96.9	2.7	0.4	100.0
Total	13 445 300	92.5	5.9	1.6	100.0	12 678 100	95.6	3.4	1.0	100.0

Source: NSO (1993).
Note: Percentages may not sum to 100 because of rounding.

Patterns similar to those of urban areas of the distribution by migration status among work status categories are also observed for rural areas. Only the employee category has a significant proportion of migrants. However, unlike in urban areas, where most of the migration involved a transfer between urban and rural place of residence, most of the employees who are migrants moved between rural areas. Fewer than 5 per cent of own account workers and unpaid family workers are migrants.

In table 34 the distribution of the labour force in terms of economic activity and migration status is shown. Levels of unemployment as measured from census data are low, being around 6 per cent in urban areas for both males and females and around 5 per cent in rural areas. In rural areas, approximately 30 per cent of the male and female labour force were not working because they were waiting for the farm season. This category comprises less than 1 per cent of the urban labour force.

Table 34. Migration status of the labour force by economic activity and sex for municipal and non-municipal areas, 1990

Area/Employment status	*Males*					*Females*				
	Number	*Per cent*				*Number*	*Per cent*			
		Non-mig	*Urb-urb*	*Rur-urb*	*Total*		*Non-mig*	*Urb-urb*	*Rur-urb*	*Total*
Municipal										
Employed	2 663 200	83.8	6.5	9.7	100.0	2 225 700	82.7	6.3	11.0	100.0
Unemployed	178 100	90.0	4.8	5.3	100.0	148 200	86.4	5.3	8.2	100.0
Waiting for season	15 700	94.9	0.6	4.5	100.0	13 600	94.9	0.7	4.4	100.0
Total	2 857 000	84.3	6.3	9.4	100.0	2 387 500	83.0	6.2	10.8	100.0

(Continued)

Table 34 *(continued)*

	Number	Per cent				Number	Per cent			
		Non-mig	*Rur-rur*	*Urb-rur*	*Total*		*Non-mig*	*Rur-rur*	*Urb-rur*	*Total*
Non-municipal										
Employed	8 801 400	90.4	7.3	2.4	100.0	7 526 100	94.5	4.1	1.4	100.0
Unemployed	682 500	95.0	3.7	1.4	100.0	525 500	95.6	3.1	1.3	100.0
Waiting for season	3 937 200	96.8	3.0	0.3	100.0	3 490 400	97.8	2.0	0.2	100.0
Total	13 421 100	92.5	5.8	1.7	100.0	11 542 000	95.5	3.4	1.0	100.0

Source: NSO (1993).

Note: Percentages may not sum to 100 because of rounding.

For males and females in urban and rural areas, it is the employed category that has the highest proportion of migrants. In urban areas the percentage of unemployed who are migrants is relatively high when compared with the unemployed category in rural areas, but is lower than the percentages for the employed. As noted in the preceding section, data from the NMS indicate that migrants either arrange employment before they move or they spend a very short time before finding employment. The census data confirm that migrants do not comprise a high proportion of the unemployed, and that in fact migrants are much more likely to be employed than unemployed.

(b) Changes in occupation

In table 35 the former and current occupations of rural-to-urban and urban-to-rural migrants are shown. The data are from the NMS. As noted previously, because of the timing of the NMS, much of the urban-to-rural movement that is recorded is of seasonal migrants returning to their rural place of origin.

For rural-urban migrants the two activities where the largest proportion of migrants originated were agriculture (35.5 per cent) and students (18.4 per cent). Approximately one third of the migrants went to work in transport and production occupations (including construction), and a further one third were equally divided between working in sales occupations or were not in the labour force.

There was a significant movement of students coming to study in urban places. Persons who were in the status of students at the time of migration also comprised almost one third of rural-urban migrants who were in professional, administrative or clerical occupations in urban areas. Almost one half of rural-urban migrants who went to work in transport or production occupations moved from rural agricultural occupations. However, it is also worth noting that about 20 per cent came from transport or production occupations in rural areas, indicating a significant degree of transfer of skills within this occupational sector.

Just as most rural-to-urban migrants engaged in transport or production occupations in urban areas, most urban-to-rural migrants come from urban jobs in this sector (59.1 per cent). Of the remainder of urban-rural migrants, only service occupations accounted for more than 10 per cent (14.4) of the origin occupations. Approximately one half of urban-rural migrants went to work in agriculture. Most of these, almost 70 per cent, came from transport and production occupations. Similarly, of the almost 13 per cent of migrants from urban areas who went to work in transport and production occupations in rural areas, 70 per cent had worked in this sector in their urban origins.

It is interesting that a significant proportion of urban-rural migrants did not work in their rural destination. Of these, 50 per cent had held jobs in transportation or production before they migrated, and another 18 per cent had worked in the service sector. A large proportion of this group consisted of seasonal migrants, primarily women, who probably had migrated with their families and sought temporary employment during the short period that they had lived in urban areas.

Because the data for urban-to-rural migration shown in table 35 contain a high proportion of seasonal migrants, and hence make it difficult to distinguish the effects of seasonality of

Table 35. Percentage distribution by former activity for current activity of rural-urban and urban-rural migrants (population aged 11 years and above)

Former occupation or activity	*Current occupation/activity*								
	I	*II*	*III*	*IV*	*V*	*VI*	*VII*	*VIII*	*total*
Rural-urban migrants									
I. Professional, admin/clerical	35.1	...	...	...	...	...	...	...	4.5
II. Sales	...	28.4	...	...	...	...	...	...	7.7
III. Agriculture	...	33.3	73.5	46.1	44.6	...	...	23.2	35.5
IV. Transport/production	...	...	...	19.6	...	...	...	...	9.9
V. Services	...	...	...	8.6	26.2	...	...	...	7.3
VI. Unemployed	...	9.2	...	6.5	...	...	...	...	6.3
VII. Student	31.6	11.8	...	9.7	...	...	88.8	...	18.4
VIII. Other not in labour force	...	...	...	...	...	...	...	36.8	10.4
Total	100	100	100	100	100	100	100	100	100
N	32	106	31	220	78	18	69	111	665
Urban-rural migrants									
I. Professional, admin/clerical	46.8	...	...	...	...	...	...	...	2.9
II. Sales	...	...	6.0	...	...	...	...	...	6.2
III. Agriculture	...	...	4.8	...	44.6	...	...	...	3.3
IV. Transport/production	...	38.0	68.9	70.3	58.0	53.9	...	50.1	59.1
V. Services	...	...	13.4	...	33.7	23.9	...	17.8	14.4
VI. Unemployed	...	...	...	...	...	...	...	...	1.4
VII. Student	...	...	...	...	...	88.0	66.8	...	5.1
VIII. Other not in labour force	...	...	4.5	8.2	...	...	...	20.4	7.5
Total	100	100	100	100	100	100	100	100	100
N	36	52	644	161	92	65	51	200	1 300

Source: National Migration Survey of Thailand.

Notes: Migrants of unknown origin excluded. ... Cells with fewer than 10 cases. Column percentages do not sum to 100 as percentages for cells with fewer than 10 observations are not displayed.

occupational change, the occupational mobility of seasonal migrants is shown in table 36. Information is provided for two streams of seasonal migrants: urban-to-rural and rural-to-rural. Together, these two streams contain approximately 95 per cent of all seasonal migrants.

Seasonal migration is heavily concentrated in a few occupational categories. Most seasonal migrants who move between urban and rural places work in transport and production occupations in urban areas and in agriculture in rural areas. As noted earlier, there is also a significant percentage that worked in production and transport occupations in urban areas but were not in the labour force upon their return to rural areas. Rural-to-rural seasonal migration primarily involves the agricultural sector as the source and destination occupation of migrants. Almost 80 per cent of rural-rural seasonal migrants had their current occupation in agriculture, and of these 70 per cent had moved from an agricultural occupation, with a further 19.3 per cent moving from a transportation or production occupation.

The data displayed in tables 35 and 36 indicate that, although migration involving rural and urban places acts to shift labour among a range of sectors and activities, it operates primarily to take labour out of agriculture and into transport and production occupations. The transfer of labour between these two occupational sectors is most apparent for seasonal migration, where the movement from agriculture into urban-based transportation and production occupations in the dry season is reversed in the wet season.

Table 36. Percentage distribution by former activity for current activity of urban-rural and rural-rural seasonal migrants (population aged 11 years and above)

Former occupation or activity	*Current occupation/activity*								
	I	*II*	*III*	*IV*	*V*	*VI*	*VII*	*VIII*	*total*
			Urban-rural seasonal migrants						
I. Professional admin/clerical	...	...	...	...	...	...	...	...	0.0
II. Sales	...	...	6.1	...	...	...	...	...	5.8
III. Agriculture	...	...	5.7	...	...	...	...	...	3.9
IV. Transport/production	...	...	73.4	92.7	90.9	76.6	...	76.5	75.3
V. Services	...	...	10.4	...	...	...	...	...	9.8
VI. Unemployed	...	...	...	...	...	...	...	...	0.0
VII. Student	...	...	...	...	...	...	...	...	0.0
VIII. Other not in labour force	...	...	4.3	...	...	...	...	...	5.1
Total	100	100	100	100	100	100	100	100	100
N	4	11	291	39	26	13	0	64	447
			Rural-rural seasonal migrants						
I. Professional admin/clerical	...	...	...	...	...	...	...	...	0.5
II. Sales	...	...	...	...	...	...	...	...	1.1
III. Agriculture	...	...	70.2	...	...	...	...	78.8	66.1
IV. Transport/production	...	...	19.3	49.4	...	...	...	...	22.7
V. Services	...	...	5.9	...	...	...	...	...	5.7
VI. Unemployed	...	...	...	...	...	...	...	...	1.5
VII. Student	...	...	...	...	...	...	...	...	0.0
VIII. Other not in labour force	...	...	...	...	...	...	...	...	2.5
Total	100	100	100	100	100	100	100	100	100
N	2	5	269	31	7	0	2	29	345

Source: National Migration Survey of Thailand.

Notes: Migrants of unknown origin excluded. ... Cells with fewer than 10 cases. Column percentages do not sum to 100 as percentages for cells with fewer than 10 observations are not displayed.

(c) Migration and occupation in Bangkok

Migrants who move in and out of Bangkok have very different occupational profiles from their respective non-migrant reference groups. As in the previous section, data from the NMS can be used to examine changes in migration patterns. As might be expected, there are also important differences between the migrants' activity in Bangkok and their activity outside of Bangkok (table 37). Migrants who moved from Bangkok worked mainly in agriculture, but for the single-move and repeat migrants the per cent working in agriculture is approximately the same as for non-migrants in regions outside of Bangkok. Seasonal migrants who moved from Bangkok are much more likely than other migrants or non-migrants to be working in agriculture, with almost two thirds of seasonal migrants from Bangkok working in that occupational sector.

Most migrants who left Bangkok were employed in the transportation/production sector (many in construction) when in Bangkok. Almost 80 per cent of seasonal migrants were employed in this field, compared with 60 per cent of repeat migrants and 40 per cent of single move migrants. There were relatively large proportions of single move migrants who were employed in the services and sales sectors in Bangkok. To summarize, seasonal migrants leaving Bangkok worked mainly in transport and services and once outside of Bangkok worked primarily in agriculture. Other migrants leaving Bangkok worked in a wider range of activities in Bangkok and only about one third worked in agriculture after they left Bangkok.

In the bottom panel of table 37 comparisons of migrants into Bangkok are made with non-migrants in Bangkok. Because of the season in which the NMS was undertaken, there are comparatively few seasonal or repeat migrants. The main comparisons can be made for the single move migrants. Approximately 40 per cent of these came out of agriculture and a similar percentage work in the transportation/production sector in Bangkok. The other major activity in their previous place of residence was student, with almost 25 per cent undertaking this activity. In Bangkok, almost 12 per cent are studying, while almost one quarter are in the sales or service sectors. Compared with non-migrants in Bangkok, migrants are less likely to be in professional, administrative or clerical occupations and more likely to be in the transport or production sectors. Age differences between migrants and non-migrants may be one cause of these differences, although as noted in section D, these patterns exist for women even within age groups.

Table 37. Percentage distribution by former and current activity of migrants formerly living in Bangkok, migrants currently living in Bangkok, non-migrants outside of Bangkok and non-migrants in Bangkok by migrant type (population aged 11 years and above)

Occupation/Activity	*Migrants formerly living in Bangkok*						*Non-migrants outside of Bangkok*
	Single move		*Seasonal*		*Repeat*		
	Former	*Current*	*Former*	*Current*	*Former*	*Current*	
Professional/admin/clerical	...	6.0	...	...	...	...	4.0
Sales	11.2	10.4	4.1	...	8.4	6.4	8.8
Agriculture	3.1	37.5	...	65.6	...	34.9	35.7
Transport/production	41.4	12.1	79.3	9.1	59.1	10.6	10.7
Services	19.7	6.0	8.5	7.0	15.8	12.4	4.9
Unemployed	3.1	9.4	...	3.1	...	11.8	2.7
Student	9.7	4.9	...	...	7.0	5.7	14.2
Other not in labour force	9.1	13.7	6.5	13.3	6.6	17.2	19.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	306	314	347	351	223	224	19 019

Occupation/Activity	*Migrants currently living in Bangkok*						*Non-migrants living in Bangkok*
	Single move		*Seasonal*		*Repeat*		
	Former	*Current*	*Former*	*Current*	*Former*	*Current*	
Professional/admin/clerical	2.9	5.0	...	...	...	...	12.1
Sales	5.7	11.5	...	...	...	...	13.9
Agriculture	40.5	...	...	...	20.6	...	1.0
Transport/production	9.3	40.2	...	70.6	28.1	46.1	18.4
Services	4.9	12.5	...	...	...	...	10.1
Unemployed	6.3	3.4	...	...	15.6	...	4.1
Student	23.6	12.2	...	...	...	...	18.8
Other not in labour force	6.9	14.0	...	...	...	25.5	21.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	339	349	13	14	65	67	2 223

Source: National Migration Survey of Thailand.

Notes: Migrants are interregional migrants. ... Cells with fewer than 10 cases. Number of observations for former and current activity differ because of missing values for former activity.

2. Decomposition of migration effects on labour force structure

(a) Methodology

There are several ways that the contribution of migration to changes in the structure of the labour force can be assessed. Whatever method is employed, however, assumptions are required. A previous analysis of changes in labour force structure between 1975 and 1980 combined census data on the volume and direction of migration streams with data on the structure of the labour force in 1975 and 1980 from rounds of the Labour Force Surveys. Changes between 1975 and 1980 in occupational structure and economic activity were decomposed into components resulting from change in the non-migrant population, changes from in- and out-migration from the particular region being considered and changes from migration within the region. Because no information is available from census data on the labour force activity of out-migrants in their area of origin, the assumption was made that the labour force composition of out-migrants was the same as that for non-migrants in the area of origin (United Nations, 1988). As seen from data in the previous section, migration is selective on labour force characteristics and hence this assumption was unlikely to be valid.

An alternative strategy is to undertake the decomposition only in terms of net migration. This is the strategy undertaken in this analysis. Data from the 1980 and 1990 censuses are used to examine changes in labour force structure over the decade. The distribution of the labour force by migration status is undertaken separately for rural and urban areas. For each of these areas, and for each of the two census years, the labour force is classified as either non-migrant, migrant from within the area and migrant from outside the area. Changes in the numbers in each category of the labour force characteristics being examined can be attributed to changes in composition by migration status. The decomposition by migration status is not carried out through a demographic accounting of in- and out-migrants as undertaken in the procedure described in the previous paragraph. Instead, the differences in numbers within labour force categories by migration status are calculated for the period 1980 to 1990. A simple example can illustrate the method used.

Suppose that in 1980 there were 100 persons employed in professional occupations in urban areas. Of these, 80 are non-migrants in the period 1975-80, 10 are urban-to-urban migrants and the remaining 10 moved from a rural area. Further suppose that in 1990 the number in professional occupations had doubled to 200 but with no change in distribution by migration status. Therefore, the increase of 100 in professional occupations in the period 1980 to 1990 can be attributed to an increase of 80 non-migrants, 10 migrants from other urban areas and 10 migrants from outside the area. This method cannot provide an estimate of the extent that out-migration contributes to change. Hence the turnover of the labour force resulting from migration cannot be assessed. However, as the assumptions required to accurately assess the extent of turnover are probably not met, we judge that the simpler method adopted here is more appropriate.

There are a number of important assumptions in the analysis adopted. The first is that migration is accurately measured. As noted earlier, however, census data are not the best source of data for capturing some types of movement, particularly seasonal movement. The use of census data is especially likely to underestimate the contributions of migration to the service and production occupational sectors. The second assumption is that migration patterns reflected in the changes occurring between 1975-1980 and 1985-1990 are applicable for the entire decade of the 1980s. It must be stressed that although the data available are only for migrants for the period 1985-1990 this does not mean that we are underestimating the contribution to labour force change of migration that occurred in the period 1980-1985. The net change in numbers of migrants that occurred in this period is incorporated into the estimate of change in migration status by assuming that the differences in the number of migrants for 1975-1980 and 1985-1990 reflect the net change of migrants over the decade. Further extending the example provided above, the increase from 10 to 20 migrants from outside the area between 1975-1980 and 1985-1990 is treated as a net gain of 10 migrants from outside the area. Obviously the actual number of migrants moving from outside the area between 1980 and 1990 would have been well in excess of 20, but there would also have been losses from out-migration.

One advantage of the method adopted in this analysis, compared with a strict demographic accounting method, is that changes in population due to areal expansion and reclassification can be ignored if we are willing to assume that the joint migrant status and labour force composition of areas redefined as urban is similar to the composition of urban areas at the start of the period.

Given that much of the expansion of urban areas between 1980 and 1990 consisted in adding areas that were already highly developed, for example Nonthaburi, this assumption can probably be sustained. If a demographic accounting procedure is used, the initial and end populations must refer to the same area, as must the migration data for the interval.

(b) Occupational decomposition

In table 38 the decomposition of sources of change in the occupational distribution of the Whole Kingdom between 1980 and 1990 is shown. The decomposition is presented separately for urban and rural areas and for males and females. For males, the largest changes in numbers of persons employed in urban areas occurred in the production sector, followed by professional occupations. Disregarding the small mining sector, in proportional terms the changes were greatest in the professional sector followed by sales occupations. In rural areas, the largest absolute change occurred in the agricultural sector. Surprisingly, the largest proportional change was observed for administrative occupations. The administrative occupational sector includes government workers and may reflect an increase in government employment in rural areas. As the increase is not found for women, it may also have resulted from changes in the size and distribution of the armed forces.

For females, employment growth in urban areas was greatest in absolute terms in the sales occupations followed by professional occupations. Proportionally, the largest increases occurred in

Table 38. Percentage change in occupational structure resulting from changing composition by migration status, for sex and municipal and non-municipal areas, 1980-1990

	Municipal						*Non-municipal*					
Sex/Occupation	*Number*		*Per cent of change due to:*				*Number*		*Per cent of change due to:*			
	1990	*Change*	*Non-mig*	*Urb-urb*	*Rur-urb*	*Total*	*1990*	*Change*	*Non-mig*	*Rur-rur*	*Urb-rur*	*Total*
Male												
Professional	333 200	197 700	89.8	5.3	4.9	100.0	315 700	97 800	98.4	-1.8	3.5	100.0
Administrative	225 700	76 300	84.1	-1.4	17.3	100.0	462 500	367 700	48.0	46.9	5.2	100.0
Clerical	225 000	74 900	88.8	2.4	8.8	100.0	141 300	69 500	79.9	10.8	9.4	100.0
Sales	507 600	179 200	89.7	2.9	7.3	100.0	444 600	150 100	96.5	1.3	2.1	100.0
Agricultural	145 600	9 100	94.5	-3.3	8.8	100.0	10 294 600	2 238 900	99.9	-1.8	1.9	100.0
Mining	1 500	-3 000	90.0	10.0	0.0	100.0	15 400	-8 800	82.3	10.2	6.8	100.0
Transport	270 200	94 800	93.9	-1.1	7.2	100.0	300 300	109 500	97.6	-0.8	3.2	100.0
Production	789 250	232 550	66.1	3.6	30.4	100.0	1 242 400	463 000	90.2	4.1	5.7	100.0
Services	200 400	34 900	70.8	4.9	24.4	100.0	214 000	52 700	73.6	13.1	13.3	100.0
Not classified	15 600	8 100	91.4	8.6	0.0	100.0	14 500	11 800	81.4	12.7	5.9	100.0
Total	2 714 200	904 700	82.8	2.8	14.3	100.0	13 445 300	3 552 200	92.2	4.7	3.2	100.0
Female												
Professional	411 700	235 400	94.2	2.6	3.2	100.0	311 900	135 600	97.2	-0.2	3.0	100.0
Administrative	50 200	15 200	102.0	-7.2	5.3	100.0	19 900	10 300	104.9	-1.9	-2.9	100.0
Clerical	241 200	119 100	85.3	5.1	9.6	100.0	136 100	95 900	83.5	8.9	7.6	100.0
Sales	655 800	261 500	88.6	2.9	8.5	100.0	793 200	286 000	96.1	-0.1	4.0	100.0
Agricultural	107 200	-900	-122.2	200.0	22.2	100.0	10 324 100	2 080 500	102.4	-3.0	0.7	100.0
Mining	100	-500	60.0	20.0	20.0	100.0	7 000	-5 100	70.6	27.5	2.0	100.0
Transport	101 000	6 900	105.8	-5.8	0.0	100.0	13 400	9 500	90.5	2.1	7.4	100.0
Production	481 400	183 100	57.4	5.7	36.9	100.0	878 700	342 000	86.2	8.8	5.0	100.0
Services	304 800	79 000	58.1	9.8	32.2	100.0	181 200	67 900	68.6	21.7	9.7	100.0
Not classified	9 600	4 800	97.9	-6.3	8.3	100.0	12 600	11 800	83.9	8.5	7.6	100.0
Total	2 272 100	903 600	81.3	3.8	14.9	100.0	12 678 100	3 034 400	98.3	-0.4	2.3	100.0

Sources: Pejaranonda *et al.*, (1984) and NSO (1993).

Note: Percentages may not sum to 100 because of rounding.

professional occupations followed by clerical occupations. There was also significant growth in the production sector which, in 1990, was the second largest occupational sector for women in urban areas. In rural areas the greatest growth in employment occurred in agricultural occupations, followed by production and sales occupations. Large proportional increases were observed for production, sales, clerical and professional occupations.

Sources of growth in employment were dominated by growth of the non-migrant labour force. For males in urban areas, urban-urban migration contributed to 2.8 per cent of overall growth, net rural-urban migration contributed 14.3 per cent and the remaining 82.8 per cent could be attributed to growth in the non-migrant labour force. The decomposition of change in employment in urban areas between 1975 and 1980 attributed 6.9 per cent of the growth to migration within urban areas, 78.2 per cent to non-migrants and the remaining 12 per cent to net in-migration (United Nations, 1988). The results of the overall decomposition of the growth of employment of females is similar to that of males, with 81.3 per cent due to non-migrants, 3.8 to within-area migration and 14.9 per cent to net in-migration. The results for females are also close to those found in the decomposition undertaken for the period 1975-1980 (United Nations, 1988).

In rural areas, non-migrants accounted for almost all of the change in female employment. There was a small negative contribution of within-area migration, while net in-migration contributed around 2 per cent of the change in employment. For males, around 92.2 per cent of the change in employment derived from growth in employment of non-migrants, 5 per cent was due to within-area migration and about 3 per cent came from net in-migration. Net in-migration can contribute positively to growth in both urban and rural areas as the absolute size of the labour force grew in both areas during this period. Again the percentage changes in employment due to different migration statuses and the sex differences in amounts of change are not significantly different in the present analysis from the analysis undertaken for 1975-1980.

Sources of change vary considerably among occupational sectors. For male employment in urban areas, net in-migration contributed more than the 14.3 per cent observed for all employment in production (30.4), services (24.4) and administrative (17.3) occupations. The greatest contributions of within-area migration came in professional and sales occupations. In rural areas, net in-migration had the greatest effect on employment growth for males in non-agricultural sector occupations, especially in services. The effects for females are similar to those of males, although with even a greater concentration in a few sectors. In urban areas, 36.9 per cent of growth in the production sector and 32.2 per cent of growth in service occupations can be attributed to net in-migration. Over 90 per cent of the growth in professional and administrative occupations, and over 85 per cent of the growth in clerical and sales occupations, came from increases in employment of non-migrants. Within-area migrants also had higher than average contributions to production and service sector employment change. In rural areas the amount of change attributed to migration is much smaller than that observed in urban areas, but the pattern is similar, with higher than average amounts of change attributed to migration for the production and services sectors.

The conclusions that can be drawn from the occupational decomposition presented in table 38 are remarkably similar to those reached for the analysis conducted for 1975-1980 (United Nations, 1988). The main effect of migration from rural to urban areas on occupational structure is to fuel the expansion in growth of the production and services sectors. Other occupational sectors, especially the professional and clerical sectors, also grew rapidly during this period but their growth was overwhelmingly accounted for by increases in employment of non-migrants.

(c) Work status

The components of change in the size of work status categories between 1980 and 1990 are shown in table 39. During this decade the largest proportional increase in urban areas was for the employer category. However, this category was relatively small in 1980 and by 1990 still comprised less than 5 per cent of the labour force. More significant was a shift away from employment as own account workers or as unpaid family workers to working as employees. This shift occurred for both men and women but was much more pronounced for women. Almost 80 per cent of female urban employment growth occurred through increase in the employee category, although this category comprised only 63 per cent of female employment at the end of the decade. A similar shift in the work status composition of the rural labour force occurred. For males there

Table 39. Percentage change in work status resulting from changing composition by migration status, for sex and municipal and non-municipal areas, 1980-1990

Sex/Work status	*Municipal*						*Non-municipal*					
	Number		*Per cent of change due to:*				*Number*		*Per cent of change due to:*			
	1990	*Change*	*Non-mig*	*Urb-urb*	*Rur-urb*	*Total*	*1990*	*Change*	*Non-mig*	*Rur-rur*	*Urb-rur*	*Total*
Male												
Employer	109 300	89 800	93.9	3.2	2.9	100.0	107 800	94 300	96.3	1.7	2.0	100.0
Own account	552 600	118 400	89.2	1.9	8.9	100.0	6 286 100	1 312 000	100.7	-3.4	2.6	100.0
Employee	1 903 000	679 600	79.8	3.2	17.0	100.0	3 004 700	1 382 200	81.0	14.5	4.6	100.0
Unpaid family	149 300	16 900	104.7	-8.3	3.6	100.0	4 046 000	763 000	97.4	0.9	1.6	100.0
Total	2 714 200	904 700	82.8	2.8	14.3	100.0	13 445 300	3 552 200	92.2	4.7	3.2	100.0
Female												
Employer	37 700	33 700	90.8	5.0	4.2	100.0	38 100	35 000	95.1	2.0	2.9	100.0
Own account	425 600	95 200	93.0	-2.8	9.9	100.0	1 937 700	678 700	99.3	-0.1	0.8	100.0
Employee	1 442 100	705 700	78.0	5.3	16.7	100.0	1 888 300	937 600	90.9	5.1	4.0	100.0
Unpaid family	366 700	69 000	93.3	-2.8	9.4	100.0	8 814 000	1 383 100	103.0	-4.2	1.3	100.0
Total	2 272 100	903 600	81.3	3.8	14.9	100.0	12 678 100	3 034 400	98.3	-0.4	2.3	100.0

Sources: Pejaranonda *et al.*, (1984) and NSO (1993).

Note: Percentages may not sum to 100 because of rounding.

were small proportionate gains in growth in the own account and unpaid family worker categories, with the unpaid family worker category also growing by a small percentage for women. Most agricultural workers are in these two work statuses and the slow growth reflects the slow growth in the size of the agricultural sector. The rapid growth in the employee category in rural areas reflects the expansion of employment in white-collar jobs and also in production.

In urban areas migration, primarily rural-urban migration, played a significant role in the rapid growth of the employee sector. Approximately 17 per cent of the growth of this sector could be attributed to rural-urban migration, with a further 3.2 per cent for males and 5.3 per cent for females coming from intra-urban migration. Migration played a relatively minor role in the expansion of the labour force in other work status categories, although rural-urban migrants contributed close to 10 per cent of the growth in own account workers for both males and females, and 9.4 per cent of the increase in unpaid family workers for females. In rural areas it was also growth in the employee sector that was most influenced by migration. In this area, however, rural-rural migration was a more important source of growth than urban-rural migration. It appears that rural areas play a major role in satisfying the labour demand of both rural and urban employee labour markets.

(d) Economic activity

Decomposition of the changes in economic activity over the decade of the 1980s is shown in table 40. In urban areas employment grew much more rapidly than did unemployment, and employment grew at a faster rate for women than it did for men. In rural areas the opposite trends occurred. Unemployment grew more rapidly than employment, the growth of unemployment was much higher for women than for men, and the growth in employment was the same for men and women. The numbers not working because they were waiting for the farm season grew relatively slowly, reflecting the slow growth in agricultural employment, but grew more rapidly for women than men. Hence the cross-sectional situation indicates a situation that is very conducive to rural-to-urban migration for employment, especially for women. Thus the patterns of migration described in previous chapters, which showed an increase in levels of rural-urban migration, with females dominating in these streams, should not be surprising.

As might be expected from the results presented earlier in this section, rural-urban migration has the strongest impacts on growth in the employed component of the labour force. Only for females, did the proportion of growth in the number unemployed resulting from migration

Table 40. Percentage change in economic activity resulting from changing composition by migration status, for sex and municipal and non-municipal areas, 1980-1990

Sex/Economic activity	*Municipal*						*Non-municipal*					
	Number		*Per cent of change due to:*				*Number*		*Per cent of change due to:*			
	1990	*Change*	*Non-mig*	*Urb-urb*	*Rur-urb*	*Total*	*1990*	*Change*	*Non-mig*	*Rur-rur*	*Urb-rur*	*Total*
Male												
Employed	2 663 200	888 300	83.5	2.5	14.0	100.0	8 801 400	2 736 600	89.4	6.6	4.0	100.0
Unemployed	178 100	46 900	91.5	0.2	8.3	100.0	682 500	387 100	95.9	2.9	1.2	100.0
Waiting for season	15 700	-5 100	102.0	-2.0	0.0	100.0	3 937 200	573 200	100.0	-1.8	1.0	100.0
Total	2 857 000	930 100	83.8	2.4	13.8	100.0	13 421 100	3 696 900	91.9	4.9	3.3	100.0
Female												
Employed	2 225 700	894 000	81.8	3.6	14.6	100.0	7 526 100	2 352 000	97.2	0.6	2.2	100.0
Unemployed	148 200	43 300	85.0	0.4	14.6	100.0	525 500	349 200	97.5	1.4	1.0	100.0
Waiting for season	13 600	-4 900	89.8	0.0	10.2	100.0	3 490 400	972 600	99.6	0.0	0.4	100.0
Total	2 387 500	932 400	81.9	3.4	14.7	100.0	11 542 000	3 673 800	97.9	0.5	1.6	100.0

Sources: Pejaranonda *et al.*, (1984) and NSO (1993).

Note: Percentages may not sum to 100 because of rounding.

(14.6 per cent) equal the proportion of growth in the number of employed. It is possible that the large increases in numbers of female migrants to urban areas has reduced the risk involved in such a move, hence there is less pressure from family members for women to have employment arranged before they move. Another process probably operating is that women who move with their husbands from rural areas are attempting to enter the labour force in larger numbers. Migration in rural areas acts almost solely to increase the size of the numbers employed. The data presented in the table indicate that migration occurs in response to labour demands and hence is instrumental in the growth of employment.

3. Effects of rural-urban migration on population structure

As noted in the previous section in relation to gender, the demographic selectivity of migration has effects on population structure in receiving and in sending areas. As the proportion of the population living in urban areas is much smaller than the proportion living in rural areas, the effects of rural-to-urban migration are greater in urban than in rural areas.

In figure 4 the age distributions for migrants and non-migrants are displayed for urban and rural areas in 1980 and 1990. In can be clearly seen that migrants comprise a much larger proportion of the population in urban areas than in rural areas. The age distribution of migrants is also very different from that of non-migrants. The effects of fertility decline can be observed in the age distribution of non-migrants, with the proportions at the youngest age group smaller than for the next group. This pattern is more pronounced for the urban than for the rural population, reflecting the earlier start of the fertility transition in urban areas.

For migrants, however, the pattern is very different. Migrants are concentrated at the young adult ages, particularly ages 15-19 and 20-24, and this concentration increased in the period from 1980 to 1990. The concentration of migrants at young adult ages was much more pronounced for urban than for rural areas. In fact, in 1980 for rural areas the proportions of migrants at each age from 5-9 to 30-34 varied relatively little. By 1990, the concentration of migrants at young adult ages was clearly emerging in rural areas, although it was still less than was observed in urban areas.

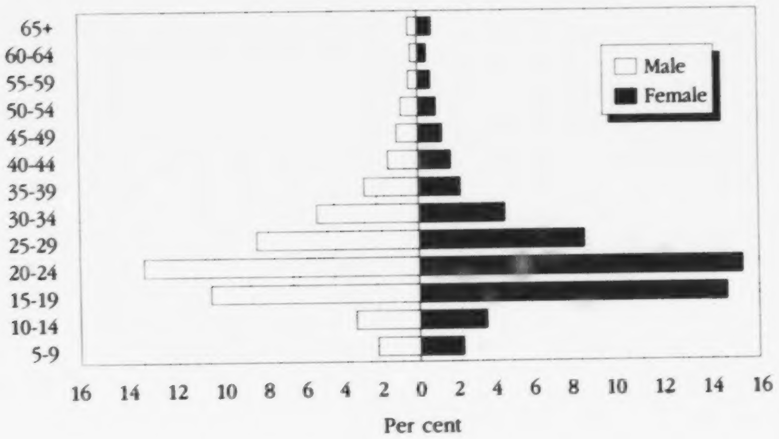
Because of the small proportion of the rural population who are in-migrants, and the relatively low levels of age selectivity in this stream, the addition of the migrants to the rural population has little effect on the overall age structure. However, for urban areas addition of migrants to the non-migrant population has pronounced effects on age structure. The large proportion of the non-migrant population at ages 15-24, primarily a result of past declines in fertility, is greatly increased. For example, approximately 13 per cent of the urban population was aged 20-24 in 1990, with 9 per cent being non-migrants and almost 4 per cent migrants. As has been shown in previous sections, most of these migrants were from rural areas.

Hence over the last two decades the demographic processes of both fertility and migration have operated simultaneously to concentrate urban populations at young ages. In the future migration may act to compensate for the reduced proportions of the urban non-migrant population at younger ages. The situation in rural areas, however, will be very different. Because rural out-migration is also concentrated at younger ages, as the effects of the rural fertility declines of the late 1970s and early 1980s operate through the age structure, the smaller proportions of rural dwellers entering young adult ages will be further reduced through out-migration to urban areas. The effects will, in all likelihood, not be severe because of the large size of the rural population in relation to rural-urban migration streams but they have the potential to contribute to rural labour shortages in the coming years. The effects may be severe in certain areas because the migrants to urban areas are not drawn equally from all areas. As seen in section C, the North-east and Northern regions are the main origin regions for rural-urban migrants and hence can be expected to experience most of the impacts of out-migration on the age structure.

The extent to which rural-to-urban migrants are concentrated at young ages is more clearly seen in the two age-sex pyramids displayed in figures 5 and 6. In figure 5 the age-sex distribution is shown for rural-urban migrants for all of Thailand and in figure 6 the age-sex distribution is shown for rural migrants to Bangkok. As noted in previous sections, the concentration of migrants at young ages is very clear. The concentration is greater for females than for males. In 1990 approximately 15 per cent of female rural-urban migrants were aged 20-24, compared with slightly less than 13 per cent of males. The differences are even greater at ages 15-19, with about 14 per cent of female migrants found at these ages, compared with only 10 per cent of males.

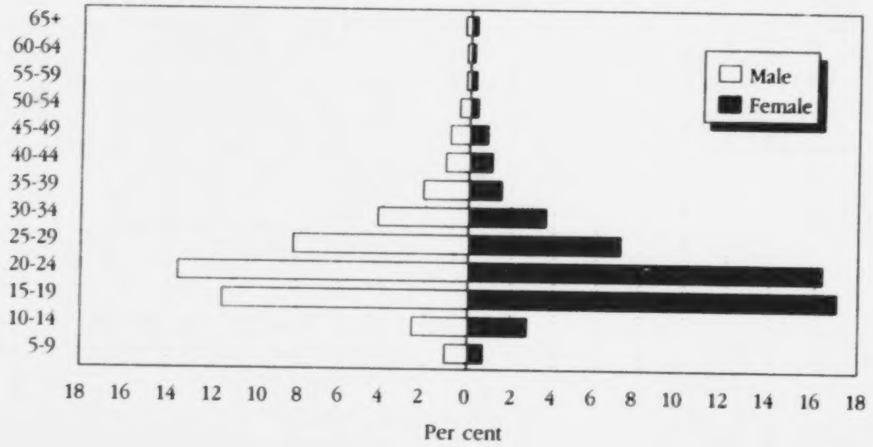
As noted in previous sections, rural-to-urban migration streams in Thailand are dominated by females. Therefore urban places in Thailand are not only becoming younger in their age structure compared with rural areas and becoming more

Figure 5. Percentage distribution of rural-to-urban migrants by sex and age, Whole Kingdom, 1990



Source: Subject Report No.1, *Migration*, 1990 Population and Housing Census, NSO (1993).

Figure 6. Percentage distribution of rural migrants to Bangkok by sex and age, 1990



Source: Subject Report No.1, *Migration*, 1990 Population and Housing Census, NSO (1993).

female in their sex structure, the greater proportion of females in urban populations is being concentrated at the young adult ages. In relative terms, the effects of age-sex selectivity patterns is to make young adult populations in rural areas male dominated and young adult urban populations female dominated. This is offset only to a partial extent, and then only temporarily, by the higher proportion of seasonal rural-urban migrants who are male.

The data displayed in the two figures also indicate that the relative concentration of women is greater in Bangkok than it is in other urban areas. There is relatively little difference between the percentage of male rural-urban migrants at young adult ages for all urban areas in Thailand and for Bangkok. However, there is a much higher concentration of female rural-urban migrants at young adult ages in Bangkok than for all of Thailand. Thus migration contributes to an even larger excess of females in Bangkok than it does in other urban areas.

4. Implications of migration and structural change

Migration contributes to the growth of both the urban and rural labour forces although its contribution is much greater in urban areas. The urban employment sectors most affected by migration are the production and service sector occupations. Most of the growth in employment in the decade of the 1980s in more highly skilled occupations occurred through an increase in the size of the non-migrant labour force. It was in less skilled areas, such as production, that migrants were a major source of labour. Migrants are not a major component of the unemployed. The evidence suggests that they have little trouble finding employment, and that only a small segment of the employment they find is as own account workers or as unpaid family workers. It appears that there is a strong demand in urban areas for migrant labour.

Much of the migration to urban areas is seasonal, with the largest seasonal flows involving movement to and from Bangkok. The seasonal migrants come out of agriculture, go mainly into transportation and production while in Bangkok, and return to agriculture after leaving Bangkok. The large numbers of seasonal workers in Bangkok during the dry season has significant impacts on some occupational sectors. For example, they make up almost 40 per cent of the transportation/production sector. They work in construction, in small factories and as day labourers in a host of areas. Just as these migrants depend on their 3 or 4 months in Bangkok to provide them with cash to survive, much of the building of Bangkok's infrastructure requires the services of this temporary labour force.

The effects of age-sex selectivity of rural-urban migration are difficult to determine. It is likely, however, that the effects will be pronounced, especially where they operate in conjunction with changes in other demographic, social and economic changes occurring in Thai society. Some of these potential impacts were identified above. For example, the decline in fertility that occurred in Thailand during the 1970s and 1980s is now beginning to be felt in smaller cohorts entering the labour force. This is likely, other things being equal, to increase the demand for labour at these ages. Thus although migration traditionally has played the role of reducing the labour surpluses, often seasonal, in rural areas, in the future it could lead to shortages of labour in rural areas.

In terms of sex selectivity patterns, it is not difficult to see how these might have implications in a number of areas including marriage and sex behaviour. For example, migration results in urban areas having an excess of young unmarried women over men of similar ages. The reverse situation is found in rural areas. In the meantime seasonal migration brings primarily men, many of whom are single, into urban areas for short periods of time. This situation is conducive to the development and the sustainability of a commercial sex industry. It is also a situation that is likely to lead to delayed marriage and, for a significant segment of the population, non-marriage.

F. POLICY IMPLICATIONS

1. Existing government policy

Government effort to shift population growth away from Bangkok was a policy that was first introduced in the Fifth National Development Plan (1982-1986). It was expected that Bangkok would gradually become transformed into a cultural and service centre employing the most highly skilled labour. Manufacturing was to shift in large part to surrounding changwat, where the workers were to live in relatively self-sufficient communities (NESDB, 1982). The development of the Eastern Seaboard changwats of Rayong, Chon Buri and Chachoengsao (the Eastern Seaboard project) as an industrial centre for the nation was also promoted in the Fifth Plan as a means of reducing the growth of Bangkok. The Sixth Plan (1987-1991) and the current plan (1992-1996) continued the stress on decentralizing activities to the Bangkok periphery (NESDB, 1992b).

Population redistribution policies of the Thai Government have gone far beyond promoting the growth of changwat close to Bangkok (see Phyormyont, 1990, for a detailed discussion of Government policies). For the last 30 years spatial policy has concentrated on decentralization of economic activity so as to encourage regional population growth. The first major attempt at decentralization occurred 30 years ago with the setting up of the Khon Kaen development centre (Sternstein, 1979). This effort was expanded in the Fourth National Economic and Social Development Plan (1977-1981) when eleven regional centres were targeted as growth centres. In the Fifth Plan (1982-1986) five of these eleven centres – Chiang Mai, Khon Kaen, Nakhorn Ratchasima, Chon Buri and Songkhla-Hat Yai – were planned to grow to between 150,000 and 300,000 by the end of the plan (NESDB, 1982). The Sixth Plan (1987-1991) continued the stress of previous plans in attempting to reduce the growth of Bangkok by promoting regional growth centres. The Seventh Plan (1992-1996), which is currently being implemented, focuses on the promotion of industry in areas outside of Bangkok and the decentralization of services from Bangkok.

The latest Government efforts have been aimed at stemming the flow of seasonal migrants into Bangkok. These efforts involve a budget of many hundreds of million Baht allocated through the Ministry of Labour and Social Welfare. The funds are being used on vocational training for farmers, some financial support for the destitute, and the provision of information on employment opportunities outside of Bangkok. The aims of the programmes are to reduce the level of seasonal migration into Bangkok by over 100,000 persons. Allocation of funds at the changwat level is based on the estimated number of seasonal migrants, and within changwat poor villages are targeted. Although there have been newspaper reports that the programme has been unsuccessful in achieving the targets, no formal evaluation has yet been undertaken.

2. Implication of rural-urban migration for development

(a) Population distribution

Any balanced assessment of the success of the regional growth centre strategy would come to the conclusion that, while there has been a trend of increased population growth in the regional growth centres, the growth has not been as high as the Government had planned. In fact, while the estimates of the contribution of migration suggest that migration contributes a relatively small proportion of overall urban growth (around 30 per cent), the contribution of migration to the urban growth of Bangkok is much greater, probably between 50 and 60 per cent.

Several researchers have argued that part of the reason that regional growth centres have not been able take over from Bangkok as the main target areas of migrants is the lack of effort, resources, and inter-departmental coordination required to establish sufficient new industries in these centres in order that they could attract those migrants who might otherwise have moved to Bangkok. Demaine (1987) argues that the regional growth centres have largely become service centres rather than the industrial centres they were designed to become. The results provided in section E clearly indicate the importance of employment in the industrial sector for rural-to-urban migrants. Furthermore, the decomposition of change in numbers employed in each occupation suggests that migrants contributed over 30 per cent of the increase in the number of males and females employed in production occupations between 1980 and 1990.

If the suggestions contained in the Seventh Plan could be carried out, it is possible that industrial development would expand in the growth centres. For example, one of the most powerful tools for influencing the location of industries in Thailand is the set of incentives offered to new industries by the Board of Investment (BOI). Those projects receiving BOI promotion have until now been overwhelmingly concentrated in Bangkok and the vicinity changwat. However, in the Seventh Plan it was proposed that only firms who invest outside of Bangkok be given BOI support (NESDB, 1992a). There now exists a three-tier system of BOI support, with BOI supported investments in Bangkok and immediate surrounding changwat attracting the lowest levels of incentives, an intermediate ring of changwat close to Bangkok, receiving incentives above those provided to Bangkok, and the highest level of incentives provided to the remaining changwat. Yet there have been continual press reports that the structure of incentives is not having a major effect in changing the location of industries.

In attempting to influence the geographical distribution of the population, should government policies be focused on industry, individuals or some combination of the two? Up to now most spatial policies have been industry-based. Individual-based policies have been designed primarily to halt temporary flows of labour to Bangkok. Yet to some extent industry-based policies have been rendered less effective as improved transportation has broken the close linkage between work place and residence. This de-linking of employment and residence has been identified as a major factor in many of the problems faced by Bangkok.

Robinson (1992), for example, argues that decentralization from Bangkok has occurred but that this has exacerbated rather than lessened many of the problems faced by the city, particularly traffic congestion. One of the reasons is that decentralization does not always simultaneously involve employer and employee. For example, Yap and Rahman (1992) describe the rapid decentralization of industry from Bangkok to Pathum Thani, and the establishment of new industry in the changwat. However, the housing of workers has not decentralized along the same lines. Most of the workers in the factories of Pathum Thani are female migrants. The factories are not drawing upon displaced agricultural labour, rather they are importing labour from other changwat. Over time there has been a decline in the extent to which factories have been providing housing for their employees. This is partly due to increasing cost of land in Pathum Thani. Now many factories provide bus transport for their employees, but this forces workers to find accommodation along the main northern artery from Bangkok into the Central region.

The more commonly recognized situation of people coming into Bangkok to work during the day but leaving to live on the outskirts of the city at night has also been linked to changes in land-use patterns in Bangkok and the vicinity (Douglass, 1992). Both situations provide clear example of the interface between individual and industry decisions. Industries have relocated to Pathum Thani and other changwat surrounding Bangkok, and they do provide a source of employment for many workers. However, many of these workers choose to live in Bangkok because of the combination of availability of housing and transport.

Douglass (1992) argues that it is not realistic to expect industries to decentralize from core regions. Instead, regional centres should be developed to take advantage of their comparative advantages, particularly in the processing of agricultural goods. It has been suggested that the development of rural industries which produce goods primarily consumed by rural households would have the effect of increasing rural employment and reducing the need for migration to

Bangkok (Wiboonchutikula, 1990). These perspectives stress providing the conditions for rural industries to grow rather than providing incentives for industries which have few links to regional areas, either in terms of their inputs or in terms of the markets for their products, to relocate.

In part the policies of the decentralization of industry outlined in the Seventh Plan recognize the importance of exploiting available local materials in attempts to use the comparative advantage of each of the growth centres. This policy is also in accord with a major recommendation of a recent comparative study of how to reduce rural-urban migration, in which it is recommended that efforts be made to encourage the development of rural resource-based industries (ESCAP, 1991). The research by Santikarn (1980) on decisions about where to locate provides support for this view. The study concluded that industries that locate in rural areas or in provincial urban areas seem to do so either because the raw materials upon which they depend are derived from those areas or because the owners of the business are residents of the area in which they locate.

The analysis of population projections presented in section C, however, suggests that Bangkok, and what is now being called the Extended Bangkok Metropolitan Region (EBMR), will continue to be the main centre for employment growth and the establishment of new firms well into the next century. More must be done to provide better planning within the region. The recently completed Urban Development Plan created by TDRI and NESDB focuses on proposing administrative structures and land use plans for such development (NESDB, 1992a).

(b) Human resources

As population redistribution policies have not been as successful as hoped, what are the implications for human resource development of rural-to-urban migration? Migrants themselves should not be seen as a problem. Permanent internal migration in Thailand plays a very important role in economic development by providing a mechanism where spatial differences in labour opportunities, especially in skilled areas, can be overcome. Temporary migration is often carried out in conjunction with variations in agricultural labour demands. It is during the agricultural seasons when demand for labour is low that migrants flock to Bangkok to search for work. They provide a valuable addition to the labour force in such areas as construction, which is also seasonal in its labour demands, and in the service sector. In addition, the wages provided by urban employment provide extra income to poor rural households.

However, it must be recognized that much of the investment that is undertaken with the aim of reducing rural-urban disparities has an effect opposite to that planned, and that this stems from patterns of migration selectivity. Chief among these investments are the expansion of education in rural areas. The results from this study indicate that in general it is the more educated who are most likely to migrate. This also means in most cases the young and ambitious segments of the population, who have limited opportunities to use their education in rural areas and hence are likely to migrate to urban areas. The dilemma is how both to improve the level of human resources of the human population and to productively retain part of the improvement in rural areas. There also is some concern that the levels of human capital of rural-urban migrants are not efficiently employed in urban centres. Instead, migrants allow urban natives to move into more sought after occupations.

It should also be noted, however, that the data presented in section C show that temporary migrants have different demographic and socio-economic characteristics than long-term migrants. The former are more likely to be concentrated among those who have finished a primary school level of education, whereas for the latter there is a linear positive relationship between education and the probability of migration. Similarly, temporary migrants are, on average, older and have a larger proportion of males than long-term migrants. Thus to some extent, temporary migration provides a means through which rural and urban areas obtain some of the benefits obtained from the investment in human resources in rural areas.

However, the Government has targeted the temporary moves in particular in their attempt to change migration patterns. To influence migration patterns in desired directions, coordinated investment in both human and physical capital is the solution that has the most chance of success. However, this is a difficult road to follow. China appeared to use successfully a rigid system of population control, in conjunction with the development of rural industries, to restrict large-scale urbanization in the late 1970s and early 1980s (Goldstein, 1990). The rapid economic growth of the latter half of the 1980s has been concentrated within particular regions, and usually large urban areas within those regions, inducing large scale rural-to-urban migration, much of which is termed temporary movement.

Economic development in Thailand has also been spatially concentrated, most being in the area of the Extended Bangkok Metropolitan Region (NESDB, 1992a). Moreover, this concentration has been particularly evident in those industries which employ the young, females (section D), and those with a moderate level of education (export industries in the electronic and other medium technology industries). Where human resource development policies are focused on rural areas in the absence of macro-economic policies designed to create employment, the result must be rural-urban migration. Unless there is increased and sustained effort to relocate some of these industries to more distant rural areas, there will continue to be a heavy flow of human resources from rural areas.

There are many Government policies which recognize the need to relocate industry outside of large urban centres. However, more important than explicit policies in shaping rural-urban migration are the implicit policies which, while enacted for reasons other than attempts to affect population distribution, often tend to make urban centres attractive destinations for rural residents by providing subsidies for urban residence. Some policies, such as the rice premium, have been eliminated, although others, such as the subsidization of public transport in Bangkok, are still in effect (Tonguthai, 1987).

While it is unproductive, and probably impossible, to halt rural-to-urban migration, efforts made to reduce the extent of selectivity of these streams will contribute to the expansion of the stock of human resources in rural areas. For example, the results presented above confirm that much of the rural-urban migration is selective of young females. Extra incentives could be provided for rural investment that is designed to tap this labour source. It was also noted in section D that female migrants, primarily because they are mainly young, single and living apart from family members, may be a group that requires special attention in order to reduce risks that they might be exposed to in urban areas.

An individual-based policy that is targeted directly at migrants is the present attempt to reduce levels of seasonal migration. For a number of reasons it is unlikely that this policy will have the desired effect. Firstly, the method of targeting the funds does not mean that migrants, or even potential migrants, will be those who receive funds. The poorest villages, and the poorest households within villages, are not those most likely to contain migrants. Also, by limiting benefits to only one person in a household, the scheme is likely to be used as simply one more risk diversification strategy of rural households where both migration and participation in the scheme are employed. Secondly, migration networks are based on social relationships, which cannot simply be broken on the basis of allowances that are less than the minimum wage. As noted above, most migrants, including seasonal migrants, have employment arranged before they migrate and those that do not have employment find work very quickly.

This reflects the high levels of labour demand for seasonal migrants. In section E it was noted that some sectors of the Bangkok economy, especially the construction industry, could not operate without the labour of seasonal migrants. Migration to urban areas is not a high-risk behaviour for rural dwellers, therefore, if they can obtain reasonably paid employment in urban areas they will continue to migrate. Lastly, if the vocational skills programme is at all effective it should result in further migration, probably of a more permanent kind. Since returns to human capital are generally higher in urban areas than in rural areas, improved levels of human capital will contribute to migration.

This does not mean that the policy of investment targeted at rural villages cannot be justified on social welfare grounds. While not likely to reduce seasonal rural-urban migration, it is likely to improve the living standards of many poor rural families. By applying pressure on the urban labour market it could also lead to upward pressure on wages paid to rural migrants. The improved level of human capital of rural-urban migrants may also translate into improved wages.

Individual-focused policies which link incentives for individuals to remain in regional locations with incentives for targeted industries to move into these areas can also be envisaged. An example of such a policy has been suggested by Professor Wattanapanom in a study of the Thai garment industry (*Bangkok Post,* 22/2/1993). He suggests the industry support training centres in areas of the North and North-east where they wish to relocate. Such a policy would provide a sufficient density of skilled workers, available at lower cost than would be available in Bangkok, to allow industries to move. He also suggested that the Government provide tax holidays to offset the higher costs of transport. What is instructive about this example is that it is an industry organization rather than individual firms that would support the training. As training would be concentrated, the required pool of skilled labour could be developed. In industries, such as the garment industry, where industry-specific rather than general skills need to be developed, it might be possible to induce significant relocation of an industry.

While the present concern with stopping large scale out-migration through increasing rural employment is justified because of the lack of income earning opportunities in rural areas, demographic processes over the last two decades have the potential to ease employment pressures, and perhaps create labour shortages. The proportions and numbers of the rural population entering the young adult ages, where rural-urban migration probabilities are highest, are starting to decline. This decline is also occurring in urban areas, although it is masked somewhat by the importation of labour from rural areas. It is likely that a situation will soon arise where the urban demand for labour at young ages will increase concurrent with a decline in the ability of rural and urban areas to provide the labour. The most likely result, in the absence of policy interventions, is that urban wages will rise to attract young rural workers. This could result in labour shortages in rural areas.

3. Conclusion

This study has utilized census data from the 1990 census to examine patterns of rural-urban migration. Special attention was placed on two aspects of rural-urban migration: the gender dimensions (section D) and labour force composition and change (section E). The study has shown that census data can provide valuable information about migration processes. Although census data on migration have mainly been used to describe patterns of movement and estimate levels of migration, there is also considerable analytical potential in the migration data obtained from censuses.

It was also observed that some types of movement, particularly temporary movement, are not well measured by the census. Because the composition, direction of movement and patterns of labour force participation differ between temporary and long-term movers, there is a need to supplement census data with migration data from other sources. National migration surveys are required to answer many of the questions that planners pose. Until this form of data collection is undertaken, the analysis of census data can provide assistance to planners and policy makers.

REFERENCES

Archavanitkul, Kritaya (1988). *Migration and Urbanization in Thailand, 1980.* IPSR Publication Number 122, Bangkok: Mahidol University.

Archavanitkul, Kritaya, Aphichat Chamratrithirong, Philip Guest and Kerry Richter (1993). *Sources of data on migration and urbanization in Thailand: Reflections on data collection techniques, definitions and results.* Paper presented at Workshop on Migration and Urbanization Policy in Thailand, Bangkok, 17 April.

Archavanitkul, Kritaya and Philip Guest (1993). *Migration and the Commercial Sex Sector in Thailand.* Paper Prepared for Seminar on AIDS Impact and Prevention in the Developing World: The Contribution of Demography and Social Science, Annecy, France, 5-9 December 1993.

Ashakul, Teera (1989). *Population projection review.* Presented at Seminar on Promotion of Analysis and Consideration of Population Consequences of Development Planning and Policy in Thailand. 8-9 July, Pattaya.

Bangkok Post (1993). Garment manufacturers plan training centres upcountry. *Bangkok Post.* February 22.

Caldwell, John (1967). The demographic structure. In *Thailand, Social and Economic Studies in Development,* T.H. Silcock, ed. Canberra: Australian National University Press, pp. 27-64.

Chamratrithirong, Aphichat (1979). *Recent Migrants in Bangkok Metropolis: A Follow-up Study of Migrants' Adjustments, Assimilation and Integration.* Bangkok: IPSR, Mahidol University.

Chamratrithirong, Aphichat and Philip Guest (1992). *Urbanization, migration and development areas: A study in preparation for the Eighth Five Year Plan.* Paper presented at Seminar on Population Programme Policies: New Directions, Chiang Mai, 7-12 September.

Chamratrithirong, Aphichat, Kritaya Archavanitkul, Kerry Richter, Philip Guest, Varachai Tongthai, Wathinee Boonchalaksi, Panne Vongek and Nittaya Phirithamwong (1993). *Details of rates and findings of internal migration in Thailand.* Paper presented at Seminar on Migration in Thailand, 2 November, Bangkok.

Chiengkal, Witayakosn (1983). The transformation of the agrarian structure of Central Thailand, 1960-1980. *Journal of Contemporary Asia,* vol. 13, No. 3, pp. 340-360.

Cochrane, Susan (1979). *The Population of Thailand: Its Growth and Welfare.* World Bank Working Paper No. 337. Washington: The World Bank.

Demaine, Harvey (1987). Thailand's national rural development programme: An experiment in semi-decentralized planning. In *Decentralization: Area Development in Practice in Asia,* H. Demaine and R. E. Malong, eds. Bangkok: Asian Institute of Technology, pp. 143-172.

Douglass, Mike (1992). *Global interdependence and urbanization: Planning for the Bangkok Mega-Urban Region.* Paper presented at International Conference on Managing the Mega-Urban Regions of Asean Countries; Policy Challenges and Responses, Bangkok, 30 November – 3 December.

Elliot, D. (1978). The socio-economic foundation of modern Thailand. *Journal of Contemporary Asia,* vol. 8, No. 1, pp. 21-50.

Economic and Social Commission for Asia and the Pacific (ESCAP) (1991). *Small Town and Rural Human Resources Development to Reduce Migration to Large Cities.* Asian Population Studies Series, No. 110. New York: United Nations.

Fuller, Theodore, Peerasit Kamnuansilpa, Paul Lightfoot and Sawaeng Rathanamongkolmas (1983). *Migration and Development in Modern Thailand.* Bangkok: The Social Science Association of Thailand.

Fuller, Theodore, Paul Lightfoot, and Peerasit Kamnuansilpa (1985). Towards migration management: A field experiment in Thailand. *Economic Development and Cultural Change,* vol. 33, No. 3, pp. 601-621.

Goldstein, Sidney (1978). Thailand's urban population reconsidered. *Demography,* vol. 15, pp. 205-223.

Goldstein, Sidney (1987). Forms of mobility and their policy implications: Thailand and China compared. *Social Forces,* vol. 65, No. 4, pp. 915-942.

Goldstein, Sidney (1990). Urbanization in China, 1982-1987: Effects of migration and reclassification. *Population and Development Review,* (New York), vol. 16, No. 2, pp. 673-703.

Goldstein, Sidney and Alice Goldstein (1986). *Migration in Thailand: A twenty-five-year Review.* Papers of the East-West Population Institute, Number 100. Honolulu: East-West Center.

Guest, Philip (1993). *People as the basic resource: Urban-rural redistribution through migration.* Paper presented at the Third Research Seminar of Mahidol University and Thammasat University, Bangkok, 21 May.

Guest, Philip (1994). The impact of popualtion change on the growth of mega-cities. *Asia-Pacific Population Journal,* vol. 9, No. 1, pp. 37-56.

Guest, Philip and Tanaporn Praditwong (1989). *A contextual model of Thai migration.* Paper presented at the Annual Meeting of the Population Association of America, Baltimore, 30 March – 1 April.

Hewison, Kevin (1988). The structure of banking capital in Thailand. *Southeast Asian Journal of Social Science,* vol. 16, No. 1, pp. 81-91.

Hugo, Graeme and Anchalee Singhanetra-Renard (1991). *International Migration of Contract Labour in Asia.* Ottawa: International Development Research Centre (IDRC).

Huguet, Jerrold (1992). The future of international migration within Asia. *Asian and Pacific Migration Journal,* vol. 1, No. 2, pp. 250-276.

Ingram, J.C. (1955). *Economic Change in Thailand.* Stanford: Stanford University Press.

Institute of Population Studies (1981). *Migration in Relation to Rural Development.* Bangkok: Institute of Population Studies, Chulalongkorn University.

Keyes, Charles (1987). *Thailand: Buddhist Kingdom as Modern Nation-State.* Boulder, Co.: Westview Press.

Kaosa-ard, Mingsarn, Chaiwat Roongruangsee and Jamaree Pithackwong (1993). Employment income and education of Northern women. *TDRI Quarterly Review* (Bangkok), vol. 8, No. 3, pp. 9-17.

Knodel, John, Aphichat Chamratrithirong and Nibhon Debavalya (1987). *Thailand's Reproductive Revolution: Rapid Fertility Decline in a Third World Setting.* Madison: The University of Wisconsin Press.

Leenothai, Sunee (1991). *The Role of Growth Centers in Migration of Women: Destination Choices of Female Migrants in Thailand.* Working Paper in Demography, No. 26. Canberra: Research School of Social Sciences, Australian National University.

Manusphaibool, Chuta (1991). *Rural-urban migration trend and employment status: A case study of Bangkok Metropolis.* Paper presented at International Conference on Migration, National University of Singapore, 8-11 February.

National Economic and Social Development Board (NESDB) (1982). *The Fifth National Economic and Social Development Plan.* Bangkok: NESDB, Office of the Prime Minister.

National Economic and Social Development Board (NESDB) (1991). *Population Projections for Thailand 1980-2015.* Bangkok: NESDB, Office of the Prime Minister.

National Economic and Social Development Board (NESDB) (1992a). *National Urban Development Policy Framework,* Volumes 1 and 2. Bangkok: NESDB/UNDP/TDRI.

National Economic and Social Development Board (NESDB) (1992b). *The Seventh National Economic and Social Development Plan.* Bangkok: NESDB, Office of the Prime Minister. (in Thai).

National Statistical Office (NSO) (1988). *Report on Employment and Unemployment of Migrants to the Bangkok Metropolis, The Vicinity of Bangkok Metropolis and the Regional Urban Growth Centre.* Bangkok: NSO.

National Statistical Office (NSO) (1990). *Report of the Labour Force Survey, Whole Kingdom (Round 3), August 1990.* Bangkok: National Statistical Office.

National Statistical Office (NSO) (1991). *Survey of Migration into the Bangkok Metropolis 1988.* Bangkok: NSO.

National Statistical Office (NSO) (1992). *Advanced Report 1990 Population and Housing Census.* Bangkok: NSO.

National Statistical Office (NSO) (1993). *Migration.* 1990 Population and Housing Census, Subject Report No. 1. Bangkok: NSO.

National Statistical Office (NSO) (1993a). *Report: The Survey of Population Change, 1991.* Bangkok: NSO.

Pejaranonda, Chintana, Sidney Goldstein and Alice Goldstein (1984). *Migration.* 1980 Population and Housing Census, Subject Report No. 2. Bangkok: NSO.

Phongpaichit, Pasuk (1991). *The labour market aspects of female migration in Thailand.* Paper presented at United Nations Expert Group Meeting on Feminization of Internal Migration, Aguascalientes, Mexico, 22-25 October.

Phongpaichit, Pasuk (1992). Female internal migration and the labour market. In *Migration and Urbanization in Asia and the Pacific: Interrelationships with Socio-economic Development and Evolving Policy Issues.* New York: United Nations, pp. 81-90.

Phyormyont, Phayap (1990). *Migration policy in Thailand: The national planning perspective.* Paper presented at the seminar on Migration Policy in Thailand: Needed Data, sponsored by the Institute for Population and Social Research, Mahidol University, and the Human Resources Planning Division, National Economic and Social Development Board, Bangkok, August 21, 1990.

Porpora, Douglas and Mah Hui Lim (1987). The political economic factors of migration to Bangkok. *Journal of Contemporary Asia,* vol. 17, No. 1, pp. 76-89.

Porpora, Douglas, Mah Hui Lim and Usanee Prommas (1989). The role of women in the international division of labour: The case of Thailand. *Development and Change*, vol. 20, No. 2, pp. 269-294.

Prachuabmoh, Visid and Penporn Tirasawat (1974). *Internal Migration in Thailand.* Paper No. 7, Institute of Population Studies, Chulalongkorn University, Bangkok.

Prasith-rathsint, Suchart (1986). *An Analysis of Change of Urbanization, Urban Growth and Migration in Thailand.* Report to NESDB, October 1986. Bangkok: NESDB.

Robinson, Ira (1992). *Emerging spatial patterns in ASEAN mega-urban regions: Alternative strategies.* Paper presented at International Conference on Managing the Mega-Urban Regions of Asean Countries; Policy Challenges and Responses, Bangkok, 30 November – 3 December.

Robinson, Warren and Chupensri Wongbuddha (1980). A revised set of urban population estimators for Thailand. In *Studies in Thai Demographic-Economic Planning*, Warren Robinson, ed. Bangkok: NSO, pp. 36-52.

Roongshivin, Peerathep, Suchai Piyaphand and Piya Suraphanich (1986). Survey of the situation of Thai returned migrant workers for development of a reintegration policy for the Sixth Five-year Plan, 1987-1991: A case study in Khon Kaen. In *Returning Migrant Workers: Exploratory Studies.* New York: United Nations, pp. 81-107.

Santikarn, M. (1980). *Regionalization and Industrial Growth.* Research Report No. 6. Bangkok: Thai University Research Association.

Silcock, T.H. (1967). Summary and assessment. In *Thailand, Social and Economic Studies in Development*, T.H. Silcock, ed. Canberra: Australian National University Press, pp. 289-307.

Singhanetra-Renard, Anchalee (1981). Mobility in North Thailand: A view from within. In *Population Mobility and Development: Southeast Asia and the Pacific*, Gavin Jones and H.V. Richter, eds. Development Studies Centre Monograph No. 27, Canberra: Australian National University, pp. 137-166.

Singhanetra-Renard, Anchalee (1987). Non-farm employment and female labour mobility in Northern Thailand. In *Geography of Gender in the Third World.* Janet Momsen and Janet Townsend, eds. Albany: State Univerity of New York Press, pp. 258-274.

Skeldon, Ronald (1992). International migration within and from the East and Southeast Asian region: A review essay. *Asian and Pacific Migration Journal*, vol. 1, No. 1, pp. 19-63.

Skinner, G.W (1957). *Chinese Society in Thailand: An Analytical History.* Ithaca: Cornell University Press.

Sternstein, Larry (1979). Thailand, migration and regional development: The Khon Kaen Development Centre. In *Migration and Development in South-East Asia*, Robin Pryor, ed. Kuala Lumpur: Oxford University Press, pp. 59-68.

Taneerananon, Sirirat (1992). *Female migrants to Hat Yai.* Paper presented at pre-conference Seminar on Migration and Urbanization: Interrelationships with Socio-economic Development and Evolving Policy Issues, Seoul, 21-25 January.

Thomlinson, Ralph (1971). *Thailand's Population.* Bangkok: Thai Watana Press.

Tingsabadh, Charit (1989). Maximizing development benefits from labour migration: Thailand. In *To the Gulf and Back: Studies on the Economic Impact of Asian Labour Migration*, Rashid Amjad, ed. New Delhi: UNDP & ILO, pp. 304-342.

Tirasawat, Penporn (1990). *Patterns and Trends of Urbanization.* Background Report No. 2.2 of the National Urban Development Policy Framework.

Tirasawat, Penporn (1992). Urban definitions: Choices we should consider. In *Collected Papers of the Annual Thai Population Association Meetings.* Bangkok: Thai Population Association, pp. 77-96.

Tonguthai, Pawadee (1987). Implicit policies affecting urbanization in Thailand. In *Urbanization and Urban Policies in Pacific Asia*, Roland Fuchs, Gavin Jones, and Ernesto Pernia, eds. Boulder: Westview Press, pp. 183-194.

United Nations (1982). *Migration, Urbanization and Development in Thailand.* Comparative Study on Migration, Urbanization and Development in the ESCAP Region, Country Reports No. 5. New York: United Nations.

United Nations (1987). *Population Growth and Policies in Mega-Cities: Bangkok.* New York: United Nations.

United Nations (1988). *Internal Migration and Structural Changes in the Labour Force.* Asian Population Studies Series No. 90. Bangkok: ESCAP.

Wiboonchutikula, Paiboon. (1990). The household demand for goods produced by rural industries. *TDRI Quarterly Review* (Bangkok), vol. 5, No. 2, pp. 8-10.

Yap, Kioe Sheng and Aminur Rahman (1992). *Housing women factory workers in the northern corridor of the Bangkok Metropolitan Region.* Paper presented at International Conference on Managing the Mega-Urban Regions of Asean Countries; Policy Challenges and Responses, Bangkok, 30 November – 3 December.